Varimixer

SPARE PART AND OPERATION MANUAL

Form 109 (01/11)

FOOD MIXER
Model W80, W100N, W150PL
1993 to Present

Caution -READ BEFORE OPERATING- Caution

Varimixer recommends that mixer operators be at least 18 years of age and be thoroughly trained on the use of the mixer.

Varimixer recommends that the following precautions be adopted to help make the mixer operation safer and more efficient.

- All operators should be at least 18 years of age.
- All operators should be thoroughly trained before being allowed to operate the mixer.
- NEVER reach into the bowl when the mixer is running.
- Do not wear loose clothing or rings while operating the mixer.
- Stop the mixer and lower the bowl before adding ingredients, scraping the bowl, removing the agitator, or removing the product.
- Stop the mixer before removing or installing attachments into the drive hub.
- Do not attempt to assemble or disassemble attachments while mounted into the drive hub.
- Always use the pusher plate with the slicer/meat grinder attachments.
- NEVER bypass the safety mechanisms supplied on the mixer. Doing so can cause injury and is the responsibility of the user to insure these safety mechanisms are operating properly.

LIMITED WARRANTY

Varimixer warrants its commercial mixers to the original purchaser against defects in material or manufacture for a period of one year from the date of original purchase, subject to the following exclusions and limitations.

EXCLUSIONS

The warranties provided by Varimixer do not apply in the following instances:
1. In the event that the equipment is improperly installed. Proper installation is the responsibility of the installer, proper installation procedures are covered in the Varimixer Spare Parts and Operations Manual.
2. In the event that the equipment is improperly maintained. Proper maintenance is the responsibility of the user. Proper maintenance procedures are covered in the Varimixer Spare Parts and Operations Manual.
3. In the event that failure or malfunction of the appliance or any part thereof is caused by abnormal use or is otherwise not attributable to a defect in material or manufacture.
4. In the event that the appliance , by whatever cause, has been materially altered from the condition in which it left the factory.
5. In the event that the rating plate has been altered or removed.
6. On parts which would normally be worn or replaced under normal conditions.
7. With regard to adjustments and/or calibrations. Checking of and changes in adjustments and calibrations are the responsibility of the installer, Proper installation is the responsibility of the installer, proper installation procedures are covered in the Varimixer Spare Parts and Operations Manual.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES WHETHER WRITTEN, ORAL OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OR WARRANTY AGAINST LATENT DEFECTS.

LIMITATIONS OF LIABILITY

In the event of warranty claim or otherwise, the sole obligation of Varimixer shall be the repair and/or replacement at the option of Varimixer, of the appliance or component or part thereof Such repair or replacement shall be the expense of Varimixer *except* that travel over 100 miles or two hours, overtime, and holiday charges shall be,, the expense of the purchaser. Any repair or replacement under this warranty does not constitute an extension of the origin, warranty for any period for the appliance or for any component part thereof. Parts to be replaced under this warranty will be repaired or replaced at the option of Varimixer with new or functionally operative parts. The liability of Varimixer on any claim of any kind, including claims based on warranty, expressed or implied, contract, negligence, strict liability or any other theories shall be solely and exclusively the repair or replacement of the product as stated herein, an such liability shall not include, and purchaser specifically renounces any rights to recover, special, incidental, consequential or other damages of any kind whatsoever, including, but not limited to, injuries to persons or damage to property, loss of profits or anticipated profits, or loss of use of the product.

TO SECURE WARRANTY SERVICE

If you claim a defect covered by this Limited Warranty, first direct your claim to the local Authorized Service Agency, giving model, serial and code numbers, voltage, a description of the problem and your sales slip. If this procedure fails to be satisfactory to you, you may write to the Varimixer National Service Manager, 14240 South Lakes Drive, Charlotte, NC 28273; you should include the information listed above.

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Read this page entirely BEFORE beginning installation**.**

VARIMIXER INSTALLATION INSTRUCTIONS

UNDER NO CIRCUMSTANCES ARE THE SPEED LEVER, BOWL LIFT LEVER, OR THE BOWL ARMS TO BE USED TO MOVE THE MIXER INTO PLACE. DAMAGE WILL RESULT TO THE UNIT. IT IS RECOMMENDED THAT THE TOP LID BE REMOVED BEFORE MOVING THE UNIT.

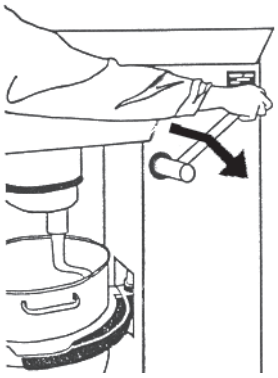
The mixer must be mounted with the rubber feet, which neutralize both shaking and rusting. Spacers can be inserted under the mixer's feet if the floor is uneven. The mixer can be bolted to the floor if desired.

Before the mixer is connected to power, it should be checked that the voltage and frequency on the rating plate is correct in relation to the place of installation. A unit labeled 220V 3 Phase will operate from 208V to 240V 3 phase safely. The rating plate is located on the rear right side of the mixer. The electrical connection box is located at the top rear of the mixer.

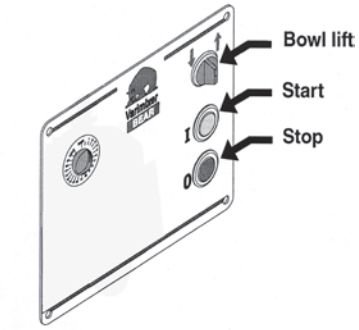
WARNING

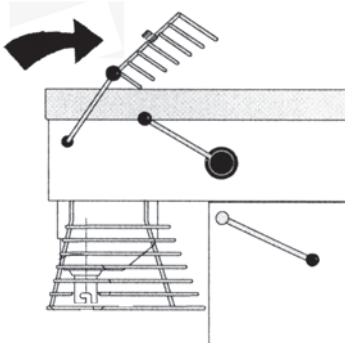
Electrical and grounding connections must comply with applicable portions of the National Electrical Code and/or other local electrical codes.

<u>Wire Color Codes</u>
White-Phase 1
Red -Phase 2
Black-Phase 3
Green-Ground
No Neutral is used in the United States and Canada

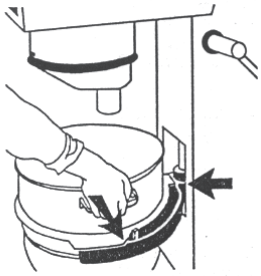


1. Lower the bowl using the bowl lift lever or the bowl lift switch on the front panel.

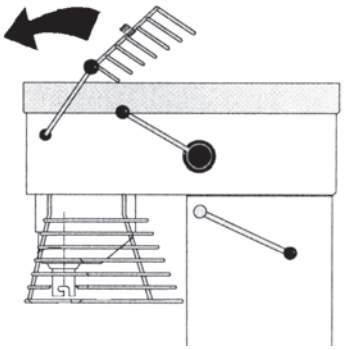




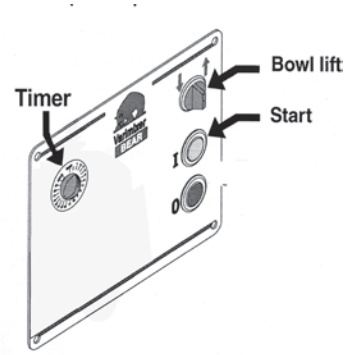
2. Open the bowl screen.



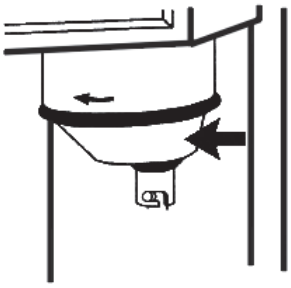
3. Remove the bowl and tools.



4. Close bowl screen and raise the bowl arms into the up position.



5. Turn timer to 10 minutes and push "start" .



6. Insure cover is rotating in the correct direction.

OPERATION OF THE MIXER:

A) Open the bowl screen and place the bowl in the bowl arms. Note: The bowl arms must be in lowest position and the bowl must be pushed all the way into the bowl arms. (Fig.3).

B) Place the mixing tool in the bayonet shaft. The pin on the tool must be turned into the bayonet hole (fig.2).

C) The bowl is raised to working position by a clockwise turn of the button for bowl lift. Ensure that the bowl is placed correctly. Close the bowl screen. If the mixer is equipped with a timer, set the mixing time required by turning the timer (fig 1) clockwise. The mixer will stop automatically, when the time runs out. When the mixer has timed out, the "procedure for starting after emergency stop" is used before the mixer is re-started.

D) Start the mixer by pressing the green start button (fig.1)

The mixer will only start when the bowl is in the "up" position, the bowl screen is "closed", and the timer is set to "time" or "hold".

E) Turn the speed selector lever (fig. 4) to the rear until the required speed has been obtained, (notice the recommended maximum speeds on page 3).

F) Before the mixer is stopped, the speed selector lever must be moved back to lowest speed (fig.4).

G) Stop the mixer by pressing the red stop button (fig.1)

PROCEDURE FOR STARTING AFTER EMERGENCY STOP:

1) This procedure must be used in cases where the mixer has been interrupted in high speed.

2) Lower the bowl and remove the tool from the bayonet.

3) Raise the bowl arms, either empty or with the bowl.

4) Close the bowl screen, start the mixer and move the speed selector lever back to lowest speed. Switch off the mixer. Now the mixer can be started as usual.

OVERLOAD

Do not overload the mixer. Sticky and heavy doughs may reduce the capacity of the bowl by 75%. The capacity is further reduced if the speed of the mixing tool is increased beyond recommended values or if an incorrect mixing tool is used. Large lumps of fat or cooled ingredients MUST be cut into small parts before they are placed into the bowl or damage can occur to the mixing tool(s).

Fig. 1 Operation panel.

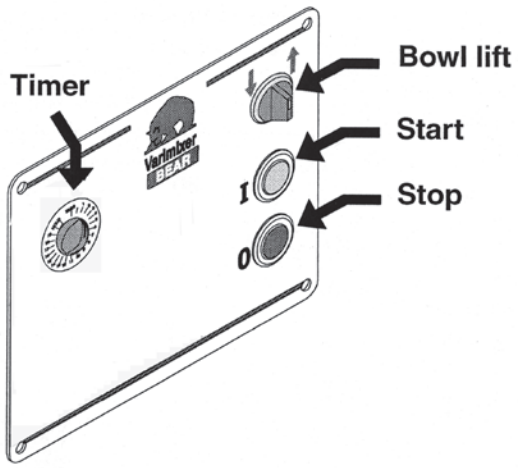


Fig. 2

Mixer with open safetyscreen,lowered bowl and mounted tool.

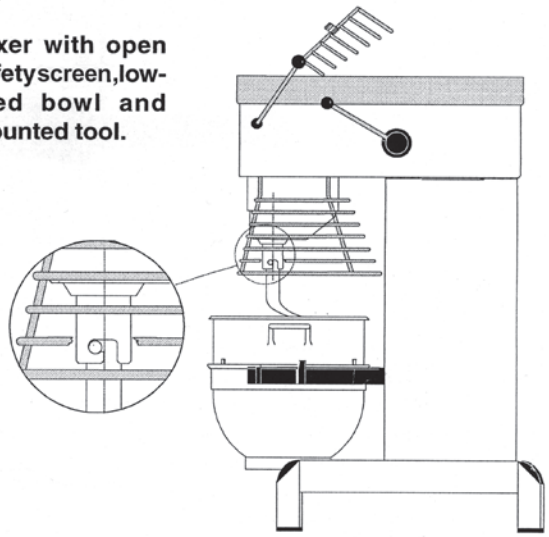


Fig. 3

Mixer seen from above, the bowl has been pushed all the way into the bowl arms. **Notice: the third "ear" of the bowl is facing the mixer**

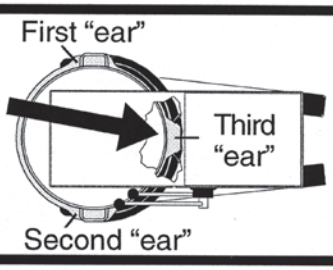
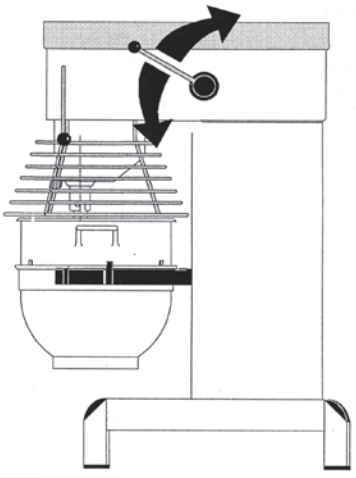


Fig. 4

Mixer with closed safety screen, raised bowl and mounted tool.



Correct use of tools:

Whips should never be struck against hard objects, this will decrease the life of the tool.

Recommended applications for tools:

Whip	Beater	Hook
Cream	Cakes	Pizza
Egg Whites	Waffles	Bread
Mayonnaise	Muffins	Donut
and the like.	and the like.	Doughs and the like.

Cleaning:

The mixer should be cleaned daily or after use.The mixer should be cleaned with a soft cloth and clean water. Sulphonated soaps should be used with caution as they destroy the mixer's lubricants.

Never use high pressure cleaning for the mixer.

Bowls and tools of aluminium must not be washed with strong alkaline detergents (pH not to exceed 9.0).

The soap suppliers can recommend the correct type of soap.

The mixer should be unplugged before cleaning to prevent accidental starting while cleaning.

The inside of the beater shaft should be cleaned once a day with warm, soapy water.

Dough hook Cleaning: *Special care should be given to cleaning the dough hook. We recommend that it be cleaned and sanitized in a commercial dish machine. An alternate cleaning procedure is to vigorously scrub the hook with a hot water and detergent solution. Use a heavy bristled brush. After cleaning, sanitize the hook by rinsing it with a 50 ppm solution of sodium hypochlorite.*

Maintenance and Lubrication:

The variable speed pulleys must be lubricated regularly, i.e. a lubrication interval of approx. 60 hours of operation or once a week.

Lubrication of variable speed pulleys:

-Start the mixer and increase the speed to approx. 50%. Stop the mixer and open the lid on the top of the mixer. On the top of each of the two pulley set shafts is a grease nipple (fig. 5 point 1). Press grease through the grease nipples until the grease gun feels hard to press or until grease comes out between the shaft and the pulleys.
-Start the mixer, and set the speed back to low speed.
-Stop the mixer and fill the grease gun with new grease so that it is ready for next time.

Lubrication of other movable parts:

The movable parts of the bowl arms, the shaft and the lifting rod must also be lubricated with oil. Remove the rear covering and lubricate the marked points with an oil can. (fig.5 pkt.2)

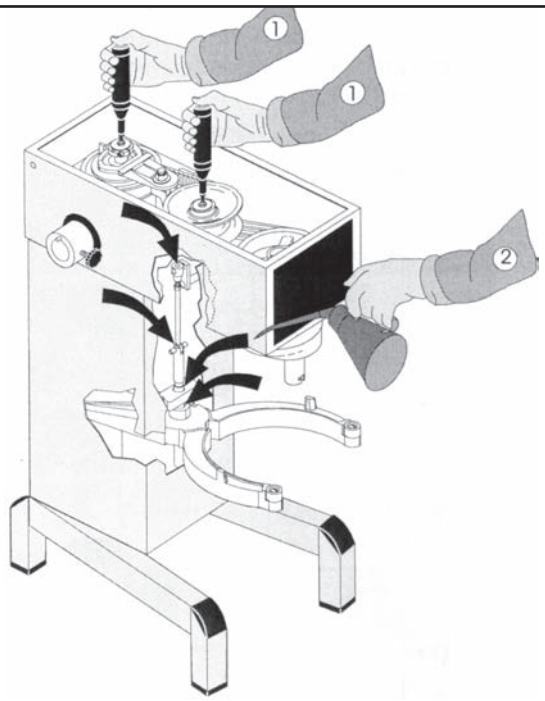
Grease Types:

-Grease for the pulley set shafts: Lubriplate # 1200-2

-On repair of the planetary head: Grease the toothed wheel and the toothed rim with Nye Gel 868VH,(PN 868VH), the needle bearings in the planetary head must not be lubricated with this type of grease, they should be lubricated with PN Sapphire 2. Do not use any another type of grease than the one stated here.

-On repair of the attachment drive: Fill the attachment drive with Tribol Molub 860/150-0, (PN 860/150-0).

Fig.5



List of Errors	Possible Solutions
A rattling sound from the closed part of the mixer.	**Adjustment of special v-belt**
The mixer starts “striking” when kneading dough which normally causes no problems.	**Adjustment of special v-belt**
The mixer changes its speed by itself.	**Adjustment of special v-belt**
The minimum and the maximum speeds are changing.	**Adjustment of speed.**
The bowl is too tight or too loose.	**Adjustment of bowl fixing**
The tool hits the sides of the bowl.	**Adjustment of bowl centering or damaged tool.**
The tool hits the bottom of the bowl.	**Adjustment of bowl height or damaged tool.**

Prior to a possible repair or adjustment, switch off the mixer by disconnecting the power cable.

Adjustment of special v-belt:

The distance (X) is only indicative as it depends on the tolerance of the special V-belt .

1. Start by tightening the v-belts (*).

2. Tighten the special V-belt (A) by moving one or two washers from (V) to (T).

3. Start the mixer and leave it running while the nut (U) is tightened completely.

4. On the front pulley set the stud (E) on the varispeed collar (F) must be placed inside the lower fork (G) and on the rear pulley set outside the fork for belt tightener (B), (both must point backwards).

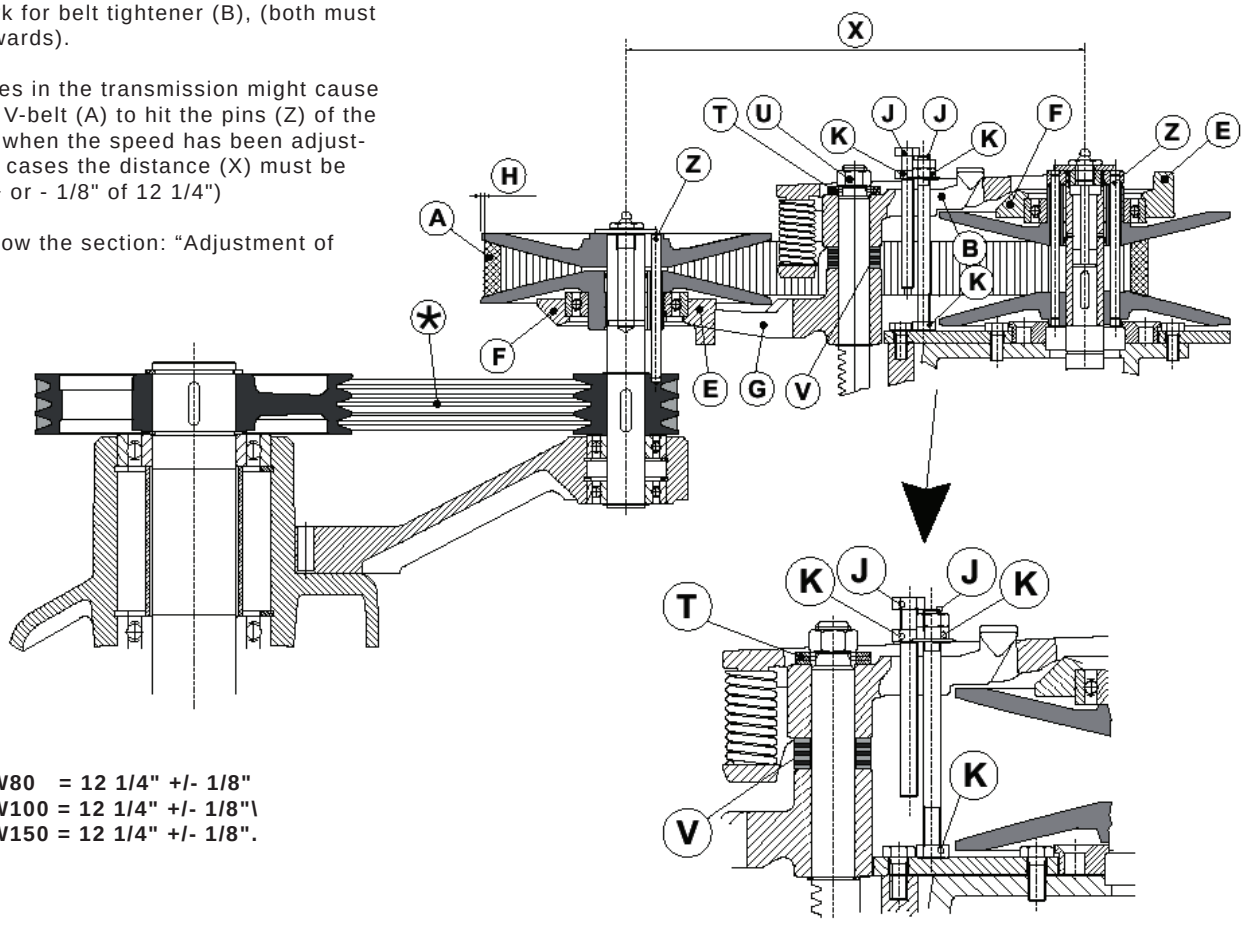
5. Tolerances in the transmission might cause the special V-belt (A) to hit the pins (Z) of the pulley sets when the speed has been adjusted. In such cases the distance (X) must be reduced. (+ or - 1/8" of 12 1/4")

6. Then follow the section: “Adjustment of speed”

Adjustment of speed:

1. The stop screws (J) on the speed lever should be adjusted so that the measurement (H) is 1/8" on the front and the rear pulley, at low and high speed, respectively. Tighten the counter nuts (K) when the speed is correctly adjusted.

2. Tolerances in the transmission might cause that the special V-belt (A) is hitting the pins of the pulley sets (Z) when the speed has been adjusted. In such cases the distance (X) must be reduced, see **“Adjustment of special v-belt”**, and the speed must be readjusted.



(X) W80 = 12 1/4" +/- 1/8"
(X) W100 = 12 1/4" +/- 1/8"
(X) W150 = 12 1/4" +/- 1/8".

Adjustment of bowl centering:

First find the present bowl centering: mount the beater and the bowl, then raise the bowl arms up to normal working position. With your hand turn the beater, and then measure the distance between beater and bowl edge. By removing the rear covering, the bowl arm guide plate is now accessible (E). Loosen the screws (D) and move the bowl arm guide plate in the required direction. Again turn the beater and measure the distance between beater and bowl. When the bowl has been centred, fasten the bowl arm guide plate in the new position and screw on the rear covering.

Adjustment of bowl fixing:

The bowl arms must be raised to normal working position. The adjusting diameter (Y) shall be measured inside between the bowl arms (fig.6a):

Adjusting diameter (Y): W80 = 20 3/8"
W100 = 21 13/16"

In case the bowl fastening is too loose, remove the lock ring (B) and draw the bearing (A) from the shaft (C). The bearing should be turned 180 degrees and be mounted on the shaft again. It might be necessary to turn both bearings. At last check the bowl centering and if necessary, adjust.

Adjustment of bowl height:

The distance (X) is measured from the bottom side of the bayonet hole to the surface on the bowl arms on which the bowl rests (fig.7a). The bowl arms must be lifted to normal working position.

Bowl height (X): W80 = 9 1/4"
W100 = 11 3/4"

The upper and lower position of the bowl is determined by micro switch (1) and (2), (fig. 7b). The two mechanical stops consisting of the bolts (3) and (4) are adjusted so that they will be hit approx. 1 mm after the micro switch, in case the micro switch should fail. The lower position is adjusted first; by sliding the entire bracket assembly up or down on the slots on the bracket (2). The upper position of the bowl arms is adjusted by adjusting the up position micro switch mounting bracket (2) up or down; it is of utmost importance that the stop screw (3) is re-adjusted afterwards.

fig.6 Adjustment of bowl fixing and bowl centering:

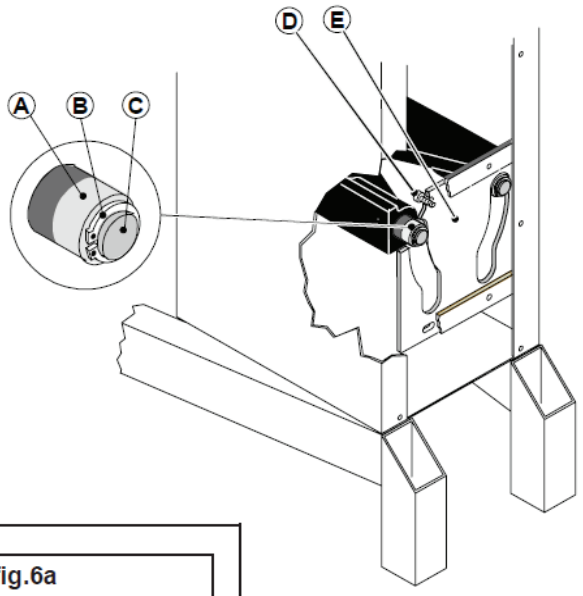
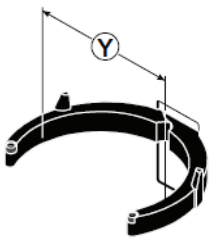


fig.6a



The bearing (A) has two diameters. As standard the mixer is delivered with the bearings mounted so that the smallest diameter points away from the bowl arms, which means the loosest bowl clamping.

fig.7a Measuring of bowl height:

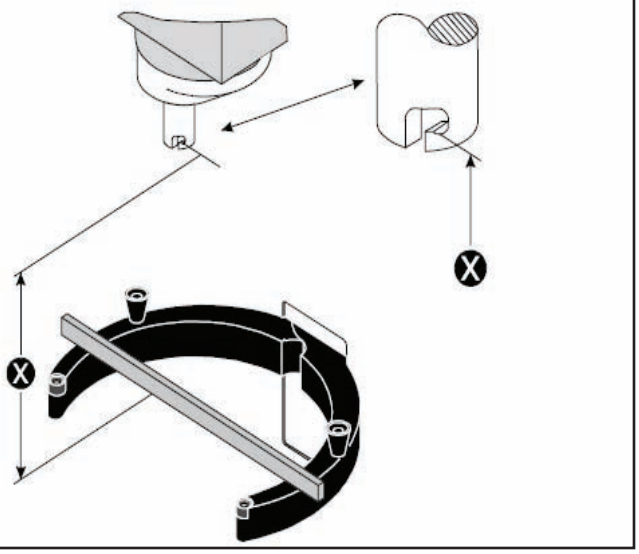
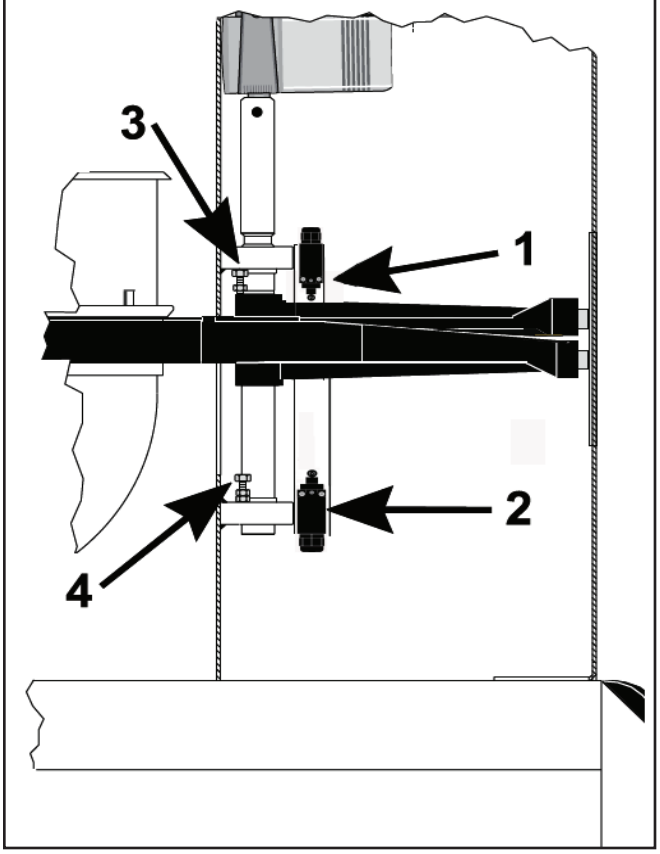
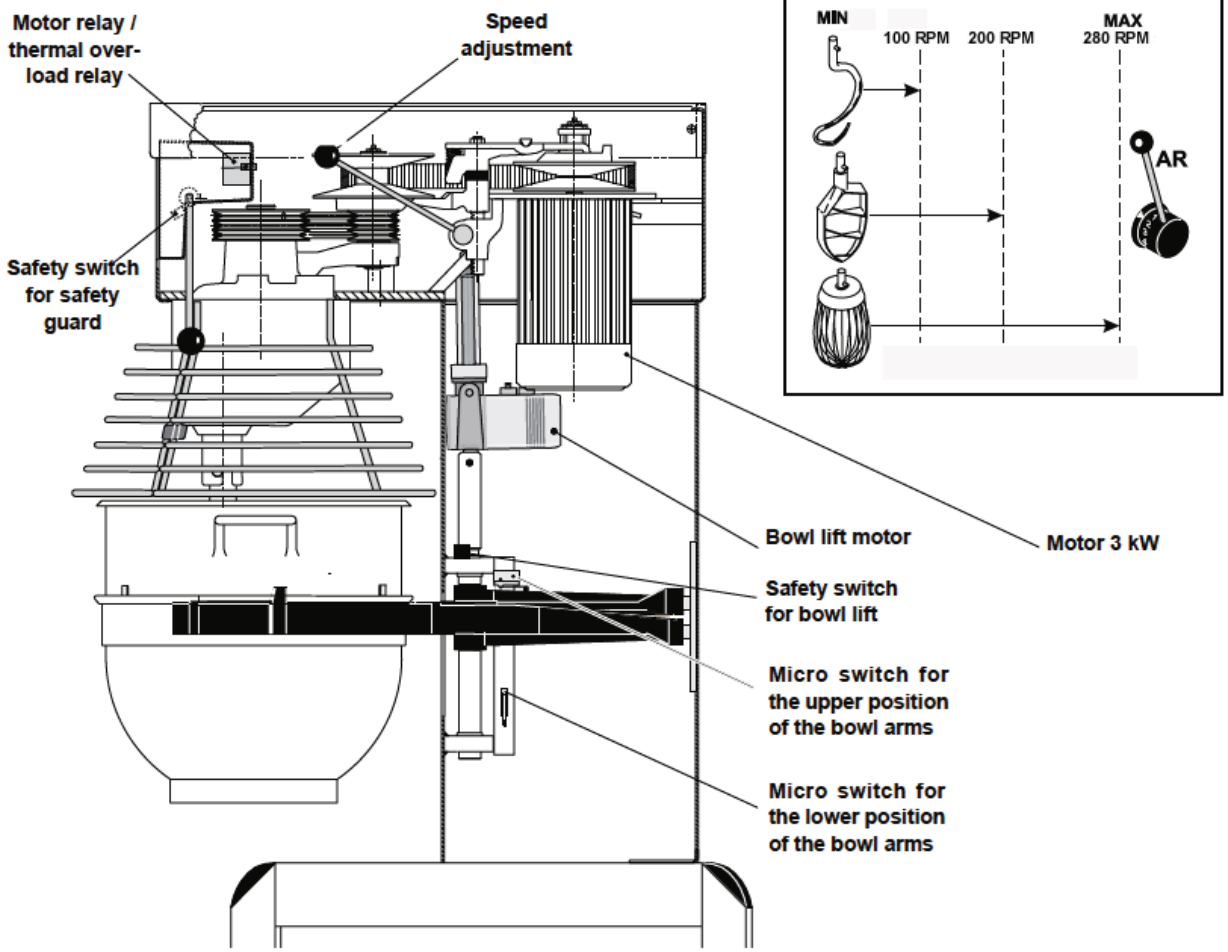


fig.7b Ajustment of bowl height:



CONSTRUCTION OF THE MIXER:


Motor relay / thermal over-load relay
Speed adjustment
Safety switch for safety guard
Bowl lift motor
Motor 3 kW
Safety switch for bowl lift
Micro switch for the upper position of the bowl arms
Micro switch for the lower position of the bowl arms

RECOMMENDED MAXIMUM SPEEDS:

Product	W80	W100	W150
Dough, Bread-65%AR	105 Lbs.	155 Lbs.	190 Lbs.
Dough, Pizza-50% AR	90 Lbs.	135 Lbs.	175 Lbs.
Dough, Donut-Yeast	80 Lbs.	150 Lbs.	170 Lbs.
Dough, Donut-Cake	60 Lbs.	140 Lbs.	225 Lbs.
Pie Dough	69 Lbs.	95 Lbs.	135 Lbs.
Cookie, Dough	68 Lbs.	105 Lbs.	160 Lbs.
Muffins	90 Lbs.	125 Lbs.	195 Lbs.
Mashed Potatoes	58 Lbs.	76 Lbs.	110 Lbs.
Pancakes, Waffles	35 Qts.	44 Qts.	50 Qts.
Whipped Cream	16 Qts.	20 Qts.	32 Qts.
Cake, Layer	92 Lbs.	125 Lbs.	175 Lbs.
Eggs & Sugar	40 Lbs.	57 Lbs.	80 Lbs.
Icing , Fondant	50 Lbs.	76 Lbs.	105 Lbs.
Egg Whites	2.5 Qts	3 Qts.	4 Qts.
Cake, Cup	140 dz.	178 dz.	250 dz.
Cookies, Sugar	132 dz.	171 dz.	240 dz.

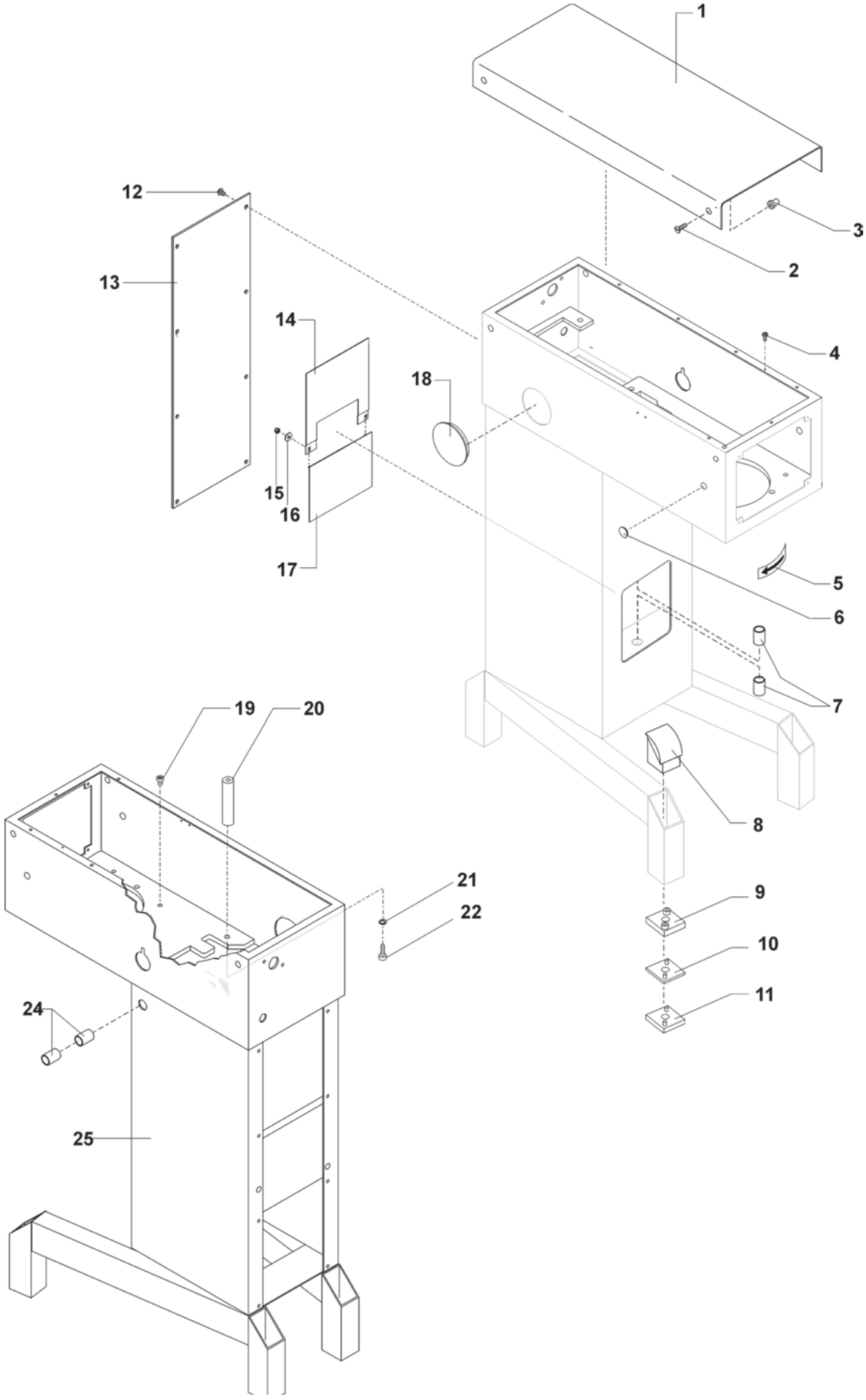
% AR=weight of liquids / weight of flour

Water weights

1 Gallon	=8.33 lbs.
1 Quart	=2.08 lbs
1 Pint (16 oz.)	=1.04 lbs.
1 Cup	= .52 lbs.

Batch size and/or speed reduction may be necessary due to one of the following conditions:
1.High Gluten Flour-Reduce batch size by 10%

2.AR % under 40%-Reduce batch size by 10%
3.Water temp under 65 Degrees F
4.USE OF ICE REQUIRES A 10% REDUCTION IN BATCH SIZE.
5. Speed should not exceed 100 RPM when mixing dough.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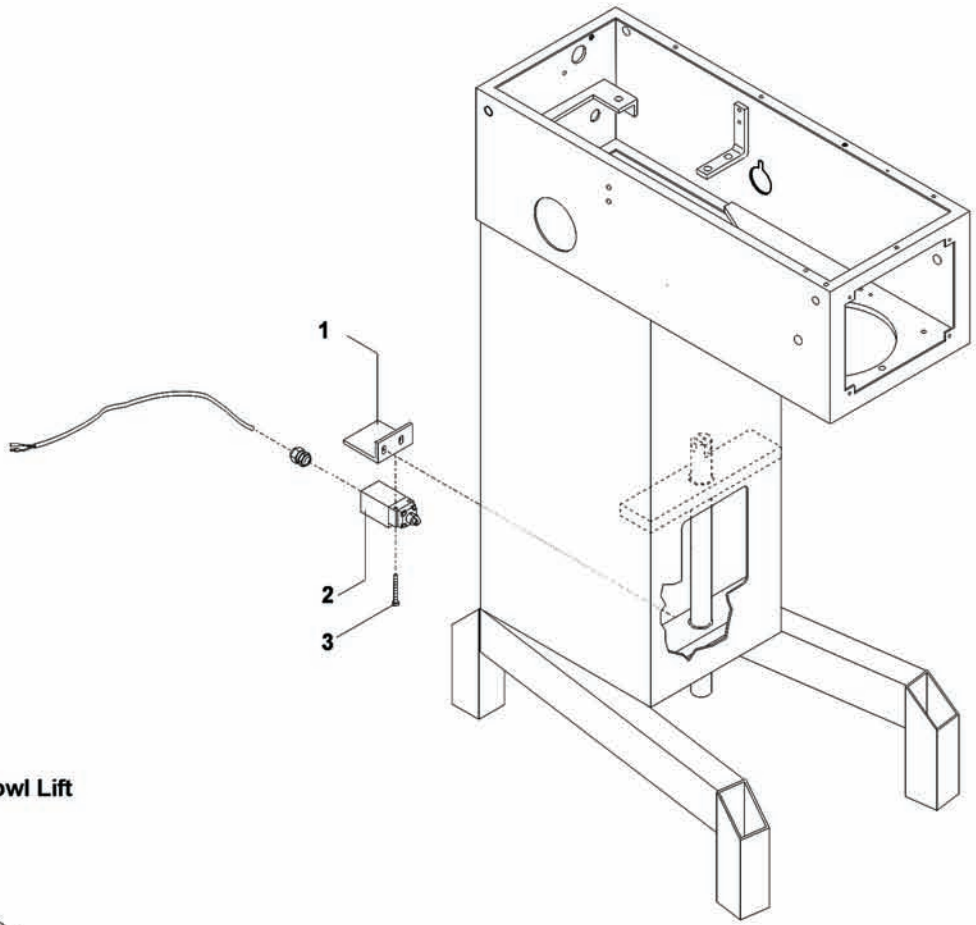
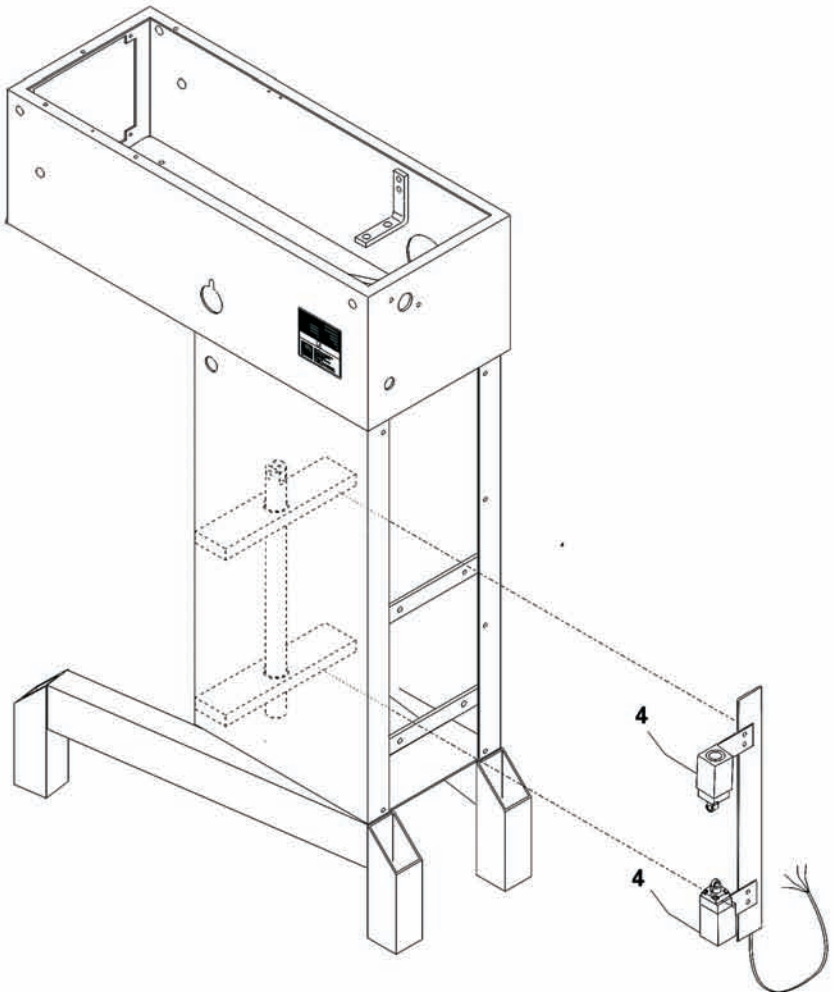
Machine Column W80-W100

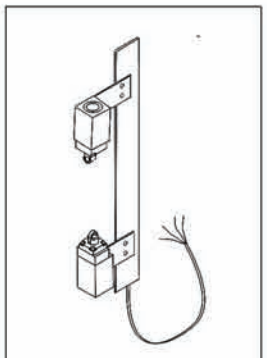
Fig. No.	Description	W80	W100
1.	Top Lid	100-21	100-21
2.	Screw for Lid M6x20	STA 5017	STA 5017
3.	Threaded Bushing	STA 6580	STA 6580
4.	Ground Screw	STA 5232	STA 5232
5.	Arrow Label	15-214	15-214
6.	Plug Button	STA 6519	STA 6519
7.	Bushings for Bowl Arm Shaft	STA 2526	STA 2526
8.	Knee Pad	80-212	80-212
9.	Foot	80N-213	80N-213
10.	3MM Foot	80N-214.3	80N-214.3
11.	6MM Foot	80N-214.6	80N-214.6
12.	Screw M6X10	STA 5080	STA 5080
13.	Rear Panel	100N-22.7	100N-22.7
14.	Upper NSF Plate	81-270	101-270
15.	Lock Nut	STA 5834	STA 5834
16.	Washer	STA 6027	STA 6027
17.	Lower NSF Plate	81-271	101-271
18.	Plug Button f/ No Hub	15-71	15-71
19.	Plug Button	NLA	NLA
20.	Motor mount shaft	81-148	81-148
21.	Washer	STA 6056	STA 6056
22.	Bolt	STA 5625	STA 5625
23.	N/A	N/A	N/A
24.	Bushings for Bowl Lift Lever	STA 2515	N/A
25.	Machine Column	81-22	81-22

For mixers with Manual Bowl Lift



For mixers with Power Bowl Lift

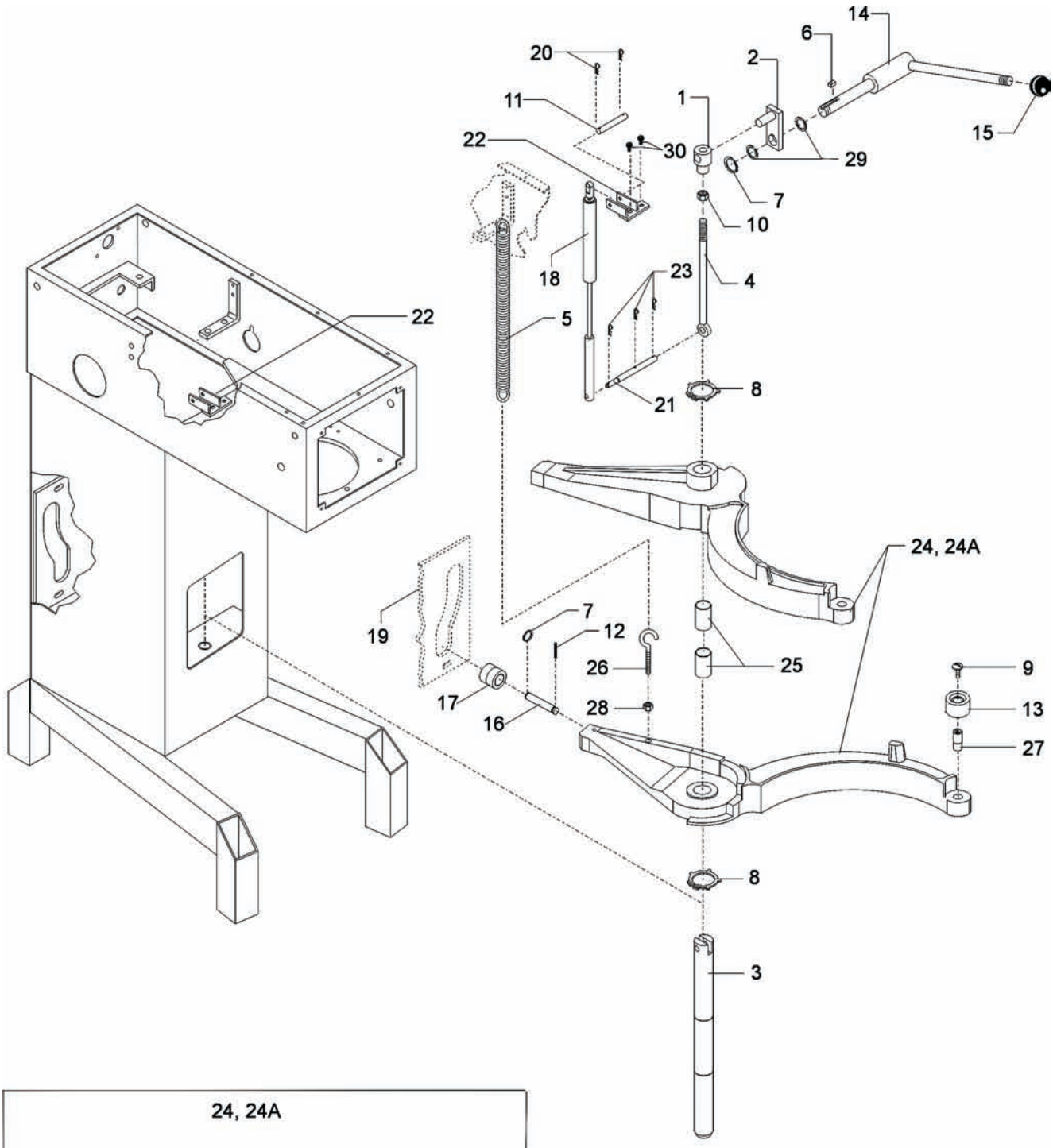




Part Number 81-174 Complete Assembly with microswitches, mounting bracket and harness.

Bowl Lift Microswitches W80-W100

Fig. No.	Description	W80	W100
1.	Microswitch Bracket (Manual Lift)	81-612	N/A
2.	Microswitch	81-173	N/A
3.	Screw	STA 5270	N/A
4.	Microswitch Bracket Assembly (Power Bowl Lift)	81-174	81-174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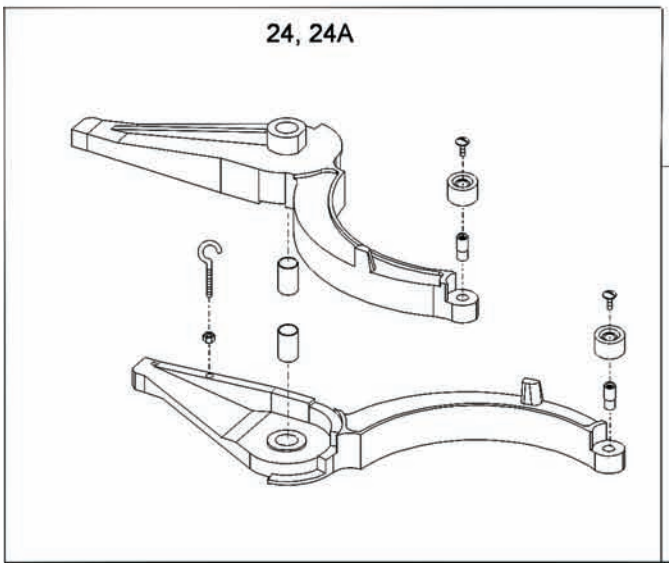
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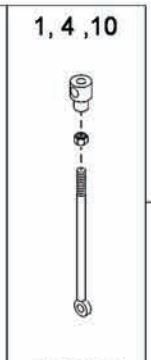
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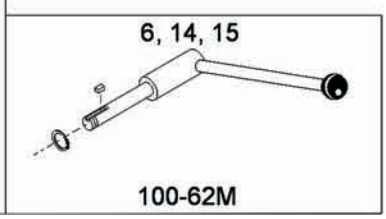
81-65M


6, 14, 15
100-62M

Manual Bowl Lift (W80 Only)

Fig. No.	Description	W80
1.	Lift Nut	15-65
2.	Crank Arm	60-63
3.	Bowl Arm Shaft	81-68
4.	Lifting Rod	81-83
5.	Lift Spring	60-110
6.	Key	STA 2020
7.	Snap Ring	STA 3408
8.	Snap Ring	STA 3462
9.	Screw	STA 5088
10.	Nut	STA 5827
11.	Pin	STA 6205
12.	Pin	STA 6370
13.	Roller	31-128
14.	Lift Lever	100-62M
15.	Ball	STA 3308
16.	Shaft	81-71.10
17.	Roller	81-71.5M
18.	Bowl Lift Dampener	81-600M
19.	Bowl Arm Giude Plate	81-71
20.	Cotter Pin	STA 6205
21.	Pin For Lift/Dampener	81-67.1
22.	Upper Mounting Bracket F/Dampener	81-86.42
23.	Cotter Pin	STA 6205
24.	Bowl Arm Left (facing unit front)	81-23
24A.	Bowl Arm Right (facing unit front)	81-24
25.	Bushings for Bowl Arms	STA 2526
26.	Eye Bolt for Bowl Arm Spring	STA 5550
27.	Roller Shaft	31-127
28.	Nut	STA 5819
29.	Washer	STA 6044

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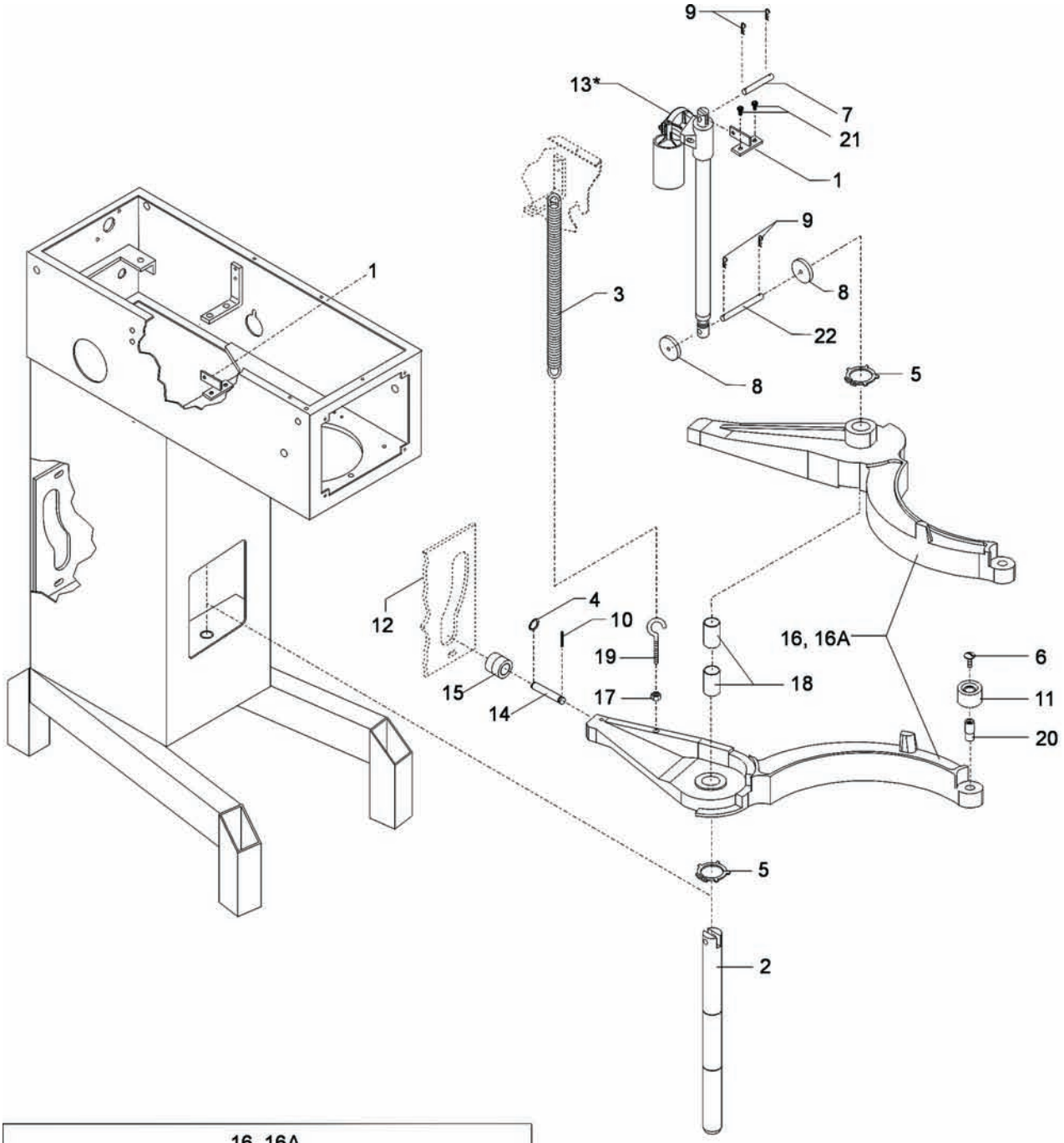

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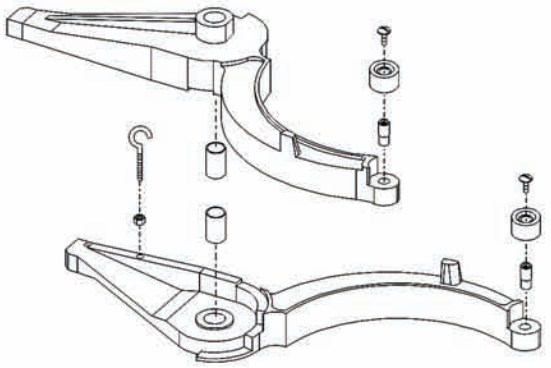
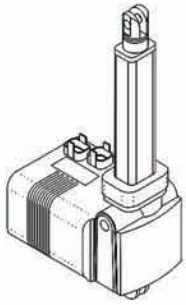


*13E
Control Box for Magnetic
24V Bowl Lift Motor

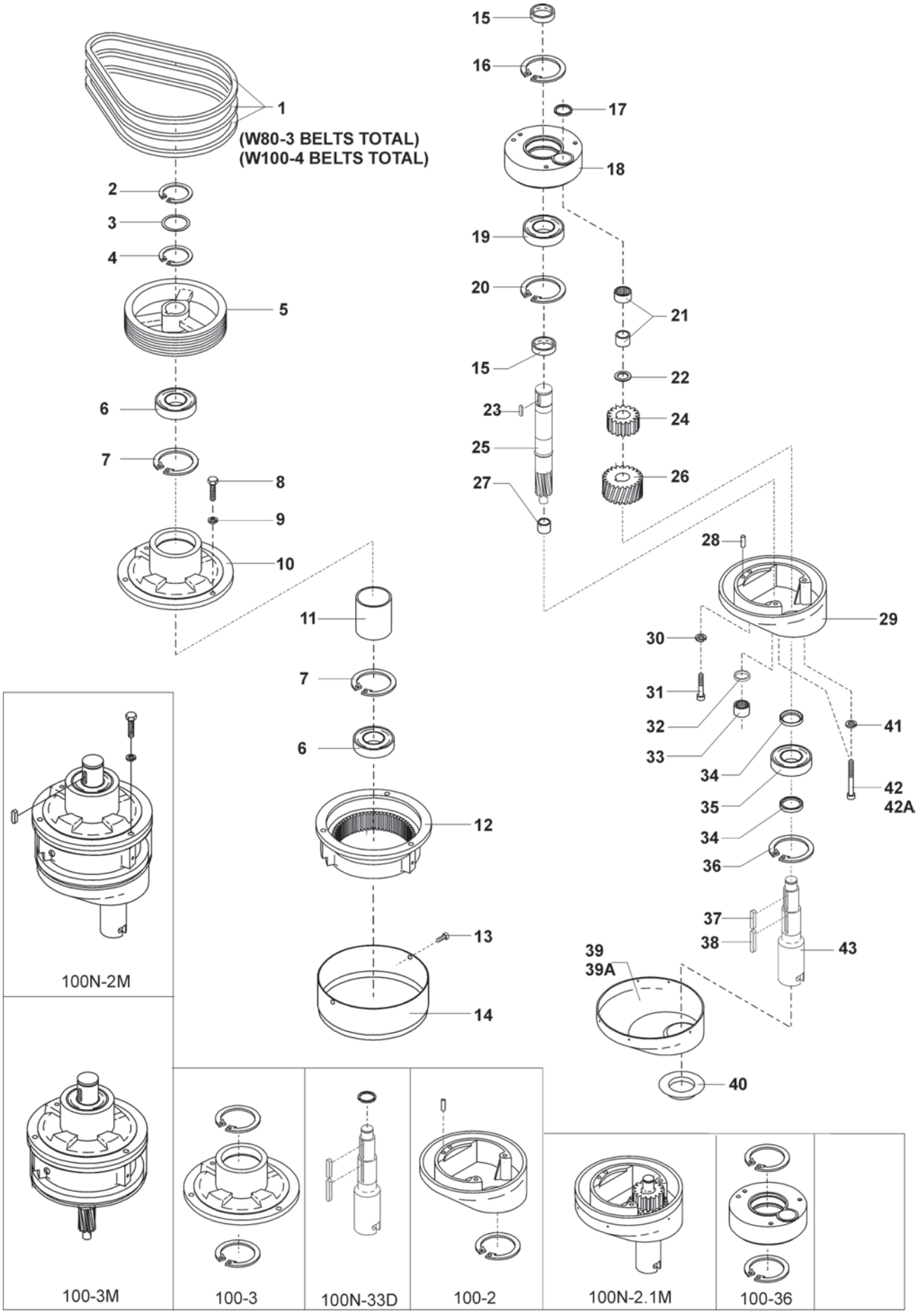
13F

*13B, 13C,13D
Magnetic Brand Motor



Power Bowl Lift W80-W100

Fig. No.	Description	W80	W100
1.	Upper Bowl Lift Motor Bracket	81-86.40	81-86.40
2.	Bowl Arm Shaft	81-68	101-68
3.	Lift Spring	60-110	60-110
4.	Snap Ring	STA 3408	STA 3408
5.	Snap Ring	STA 3462	STA 3462
6.	Screw	STA 5088	STA 5088
7.	Pin	100-67	100-67
8.	Roller for Bowl Arm Shaft	100N-66	100N-66
9.	Cotter Pins	STA 6205	STA 6205
10.	Pin	STA 6370	STA 6370
11.	Roller	31-128	31-128
12.	Bowl Arm Guide Plate	81-71	81-71
13.	Bowl Lift Motor (Linak shown-24VDC)	100N-86.02	100N-86.02
13B.	Bowl Lift Motor Magnetik (115V)	81-86.1	81-86.1
13C.	Bowl Lift Motor Magnetik (240V)	81-86.2	81-86.2
13D.	Bowl Lift Motor Magnetik (24VDC)	81-86.15	81-86.15
13E.	Control Box for Magnetik (24VDC)	140-87	140-87
13F	Transformer (220V/24V)	140-430	140-430
13G.	Transformer (480V/220V)	140-430.1	140-430.1
14.	Shaft	81-71.10	81-71.10
15.	Roller	81-71.5M	81-71.5M
16.	Bowl Arm Left (facing unit front)	81-23	101-23
16A.	Bowl Arm Right (facing unit front)	81-24	101-24
17.	Nut	STA 5819	STA 5819
18.	Bowl Arm Bushings	STA 2526	STA 2526
19.	Eye Bolt for Bowl Arm Spring	STA 5550	STA 5550
20.	Roller Shaft	31-127	31-127
21.	Bolt	STA 5322	STA 5322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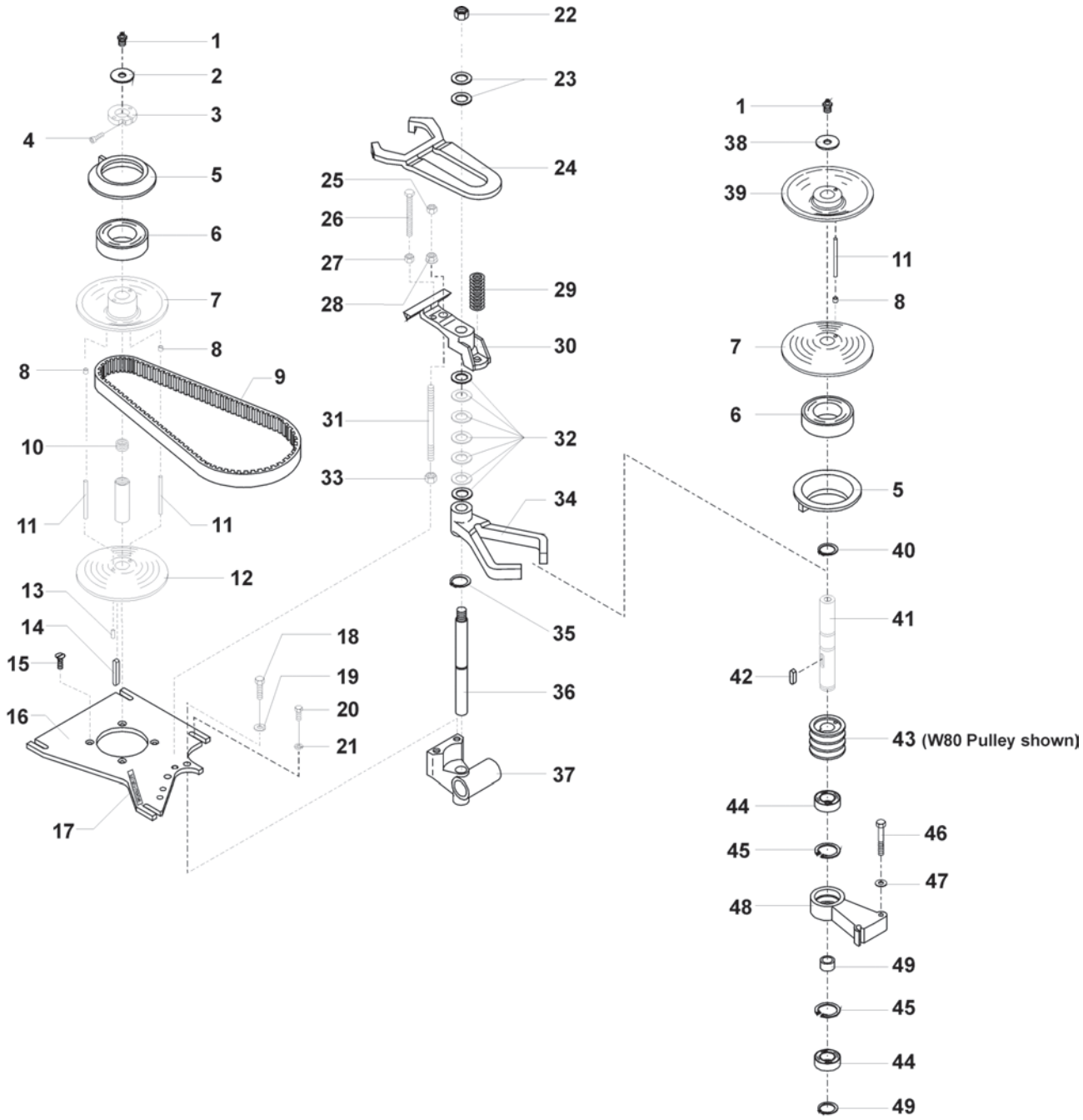
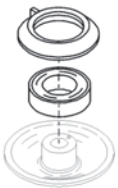
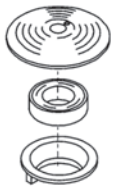
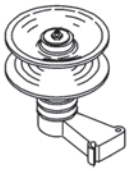
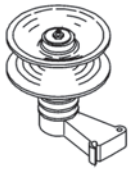
100N-2M
100-3M
100-3
100N-33D
100-2
100N-2.1M
100-36

Planetary Head W80-W100

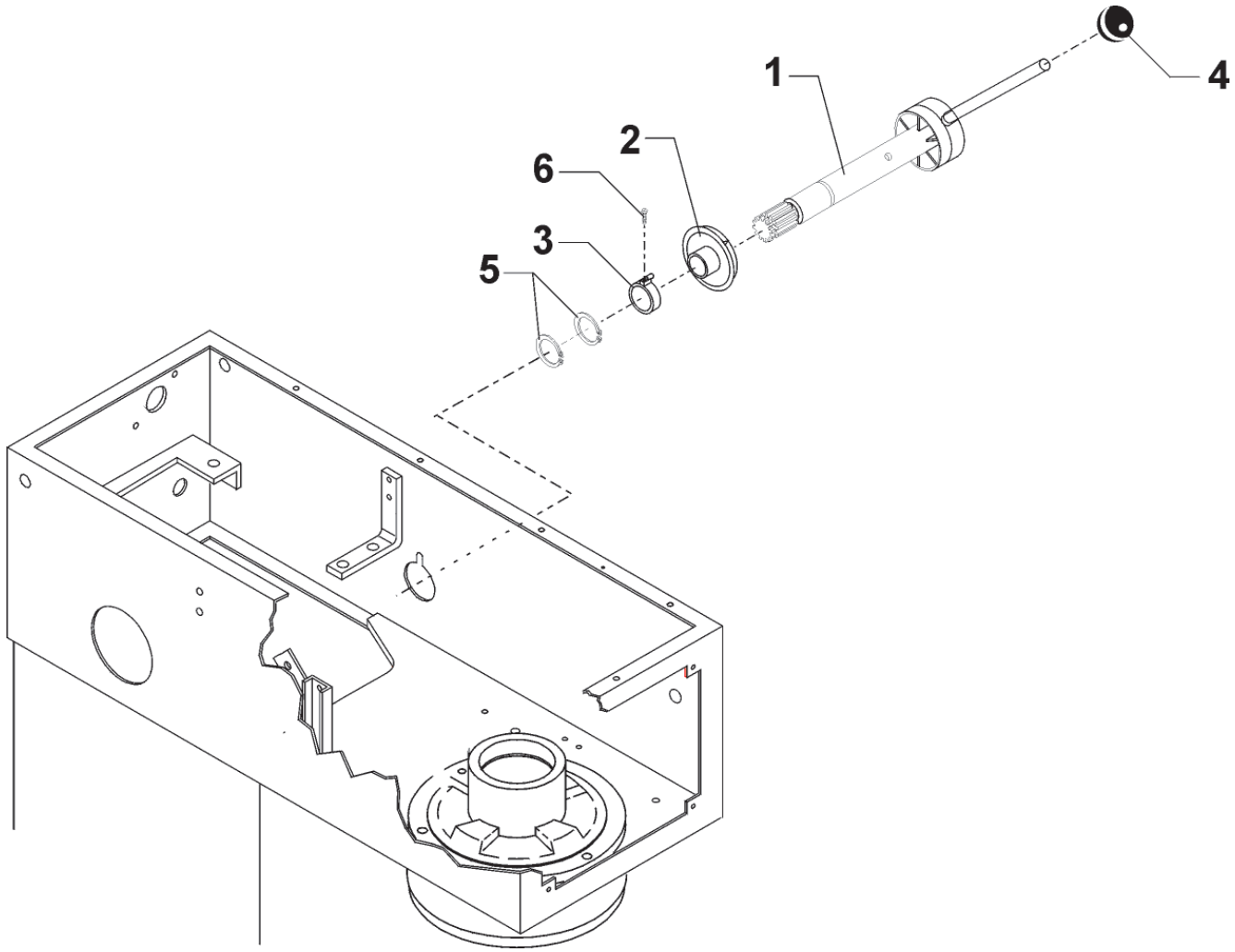
Fig. No.	Description	W80	W100
1.	V-Belt (Must be changed as a set)	100-90.1 Order qty 3	100N-90.2 Order qty 4
2.	Snap Ring	STA 3419	STA 3419
3.	Washer	STA 6048	STA 6048
4.	Snap Ring	STA 3419	STA 3419
5.	Planetary Pulley	100-129A	100N-129A
6.	Ball Bearing	100-99	100-99
7.	Snap Ring	STA 3532	STA 3532
8.	Bolt	STA 5346	STA 5346
9.	Lockwasher	STA 6057	STA 6057
10.	Main Bearing Casting	100-3	100-3
11.	Distance Tube	100-141	100-141
12.	Gear Wheel	100-1	100-1
13.	Screw	STA 5044	STA 5044
14.	Shroud	100-22.9P	100-22.9P
15.	Spacer	100-37	100-37
16.	Snap Ring	STA 3530	STA 3530
17.	Snap Ring	STA 3478	STA 3478
18.	Eccentric Disc	100-36	100-36
19.	Ball Bearing	100-100	100-100
20.	Snap Ring	STA 3530	STA 3530
21.	Needle Bearing w/ Race	100-96	100-96
22.	Washer	100-235	100-235
23.	Key	STA 2030	STA 2030
24.	Upper Rim Pinion	100-31	100-31
25.	Main Shaft	100N-30	100N-30
26.	Lower Rim Pinion	100N-32N	100N-32N
27.	Race for Needle Bearing	100-101RACE	100-101RACE
28.	Pin	STA 6460	STA 6460
29.	Lower Planetary Head Casting	100-2	100-2
30.	Lockwasher	STA 6057	STA 6057
31.	Bolt	STA 5644	STA 5644
32.	Seal	100-108R	100-108R
33.	Needle Bearing w/Race	100-101	100-101
34.	Spacer	100-37	100-37
35.	Ball Bearing	100-97	100-97
36.	Snap Ring	STA 3532	STA 3532
37.	Key	STA 2034	STA 2034
38.	Key	STA 2039	STA 2039
39.	Stainless Steel Cover	100-272	100-272
40.	Rubber Ring	100-209	100-209
41.	Lockwasher	STA 6057	STA 6057
42.	Bolt (Allen Head-under cover)	STA 5650	STA 5650
42A	Bolt (Hex Head S/S-over cover)	STA 5652	STA 5652
43.	Bayonet Shaft	100N-33D	100N-33D



60-59M Motor Pulley Assembly	60-13.1M Lower Motor Pulley Assembly	 60-15.1M Upper Motor Pulley Assembly	60-13M Top Pedestal Pulley	 60-15M Lower Pulley Pedestal Assembly	 100-6M W80 3-Belt	 100N-6M W100 4-Belt

Transmission W80-W100

Fig. No.	Description	W80	W100
1.	Grease Zerk	STA 3220	STA 3220
2.	Washer	STA 6018	STA 6018
3.	Clamping Ring w/screw	27-227	27-227
4.	Screw f/clamping ring	STA 5612	STA 5612
5.	Vari Speed Collar	15-17	15-17
6.	Ball Bearing	15-103	15-103
7.	Movable Pulley	60-15.1M	60-15.1M
8.	Bushing	STA 2505	STA 2505
9.	Vari Speed Belt	60-91	60-91
10.	Reducer	15-156	15-156
11.	Drive Pin	60-285	60-285
12.	Motor Pulley Bottom Half Assembly	60-13.1M	60-13.1M
13.	Set Screw	STA 5602	STA 5602
14.	Key (no attachment drive)	STA 2011	STA 2011
14A.	Key (f/units with attachment drive)	STA 2007	STA 2007
15.	Slotted Screw f/motor mount plate	STA 5018	STA 5018
16.	Motor Mount Plate	60-61	60-61
17.	Label	N/A	N/A
18.	Mounting Bolt f/speed mechanism	STA 5345	STA 5345
19.	Washer	STA 6010	STA 6010
20.	Bolt f/motor mount plate	STA 5433	STA 5433
21.	Washer	STA 6026	STA 6026
22.	Nut f/rack	STA 5815	STA 5815
23.	Washers for spring fork	STA 6040	STA 6040
24.	Upper Fork	20-19	20-19
25.	Jam Nut f/ low speed stop	STA 5810	STA 5810
26.	Bolt f/high speed stop	STA 5446	STA 5446
27.	Jam Nut f/ high speed stop	STA 5810	STA 5810
28.	Flanged Nut f/low speed stop	STA 5895	STA 5895
29.	Vari Spring	40P-275	40P-275
30.	Trestle	20-26	20-26
31.	Pin Bolt f/low speed stop	30N-305	30N-305
32.	Washers for spring fork	STA 6040	STA 6040
33.	Flanged Nut f/low speed stop	STA 5895	STA 5895
34.	Lower Fork	27-16	27-16
35.	Snap ring f/rack	STA 3407	STA 3407
36.	Rack	15-46	15-46
37.	Bearing for Rack	15-18	15-18
38.	Washer	STA 6018	STA 6018
39.	Upper Pedestal Pulley	60-13M	60-13M
40.	Snap Ring	STA 3410	STA 3410
41.	Pedestal Shaft	60-41	100N-41
42.	Key f/Pedestal Shaft	STA 2022	STA 2022
43.	Pulley f/Pedestal Shaft	100-128 (3V)	100N-128 (4V)
44.	Ball Bearing	27-102	27-102
45.	Snap Ring	STA 3514	STA 3514
46.	Bolt	STA 5348	STA 5348
47.	Washer	STA 6026	STA 6026
48.	Pedestal Arm	100-6	100N-6
49.	Snap Ring	STA 3410	STA 3410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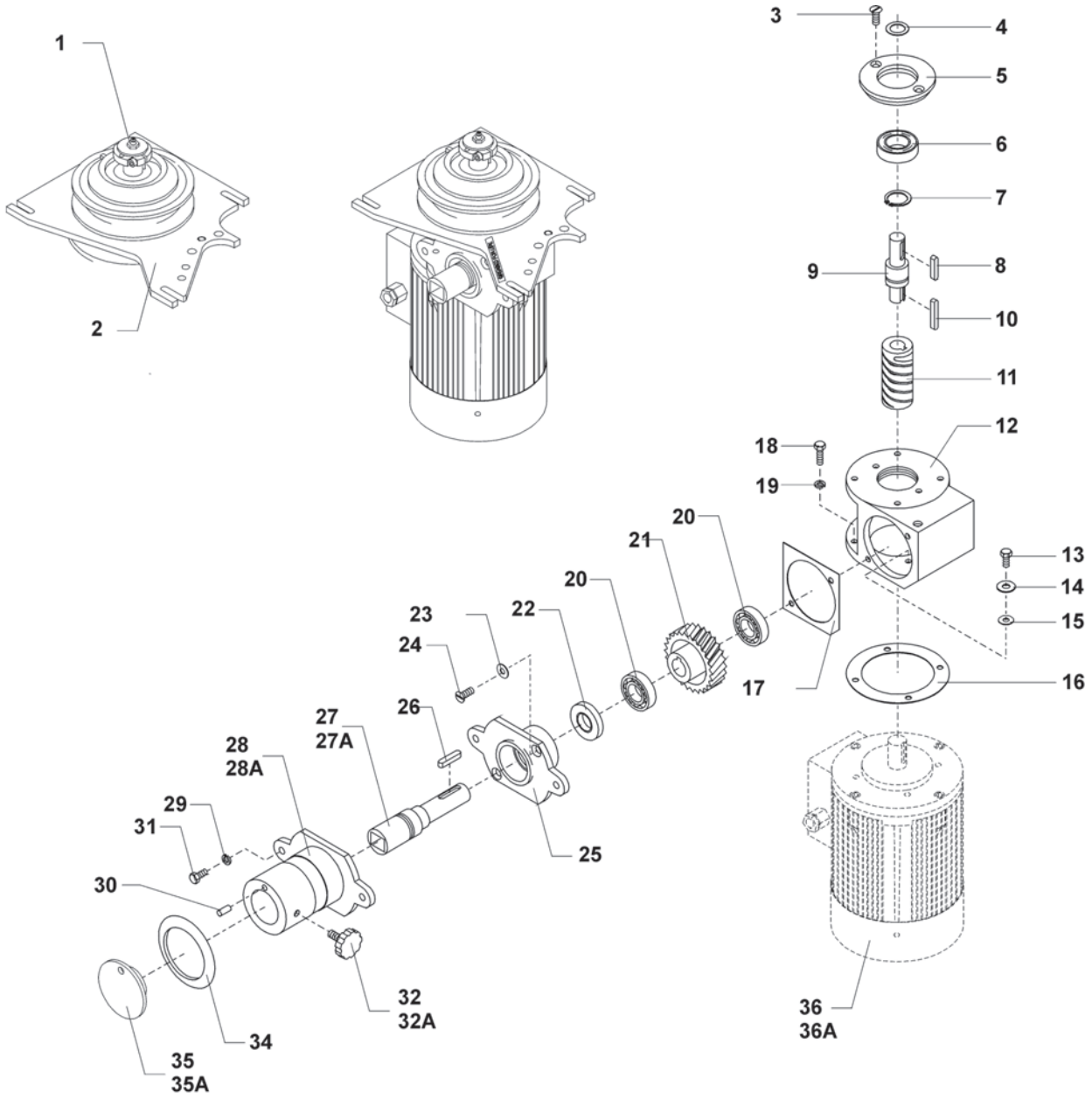
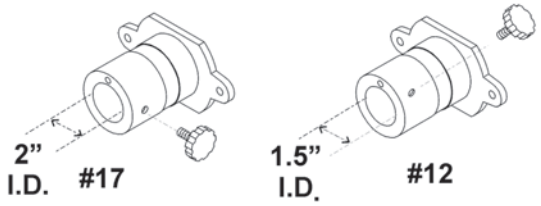
Speed Lever System W80-W100

Fig. No.	Description	W80-W100
1.	Speed Lever W80	80N-47M
1A.	Speed Lever W100	100N-47M
2.	Disc w/ arrow	30N-47.10
3.	White Clamp	30N-47.20
4.	Black Knob	STA 3306
5.	Snap Ring	STA 3414
6.	Screw	STA 5247



IDENTIFYING A #17 HUB VERSUS A #12 HUB



THIS AFFECTS ITEM NUMBERS:
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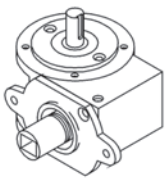
32, 32A, 35, 35A
37, 37A, 38, 38A,

PLEASE DETERMINE HUB SIZE BEFORE ORDERING PARTS



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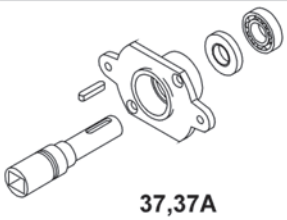

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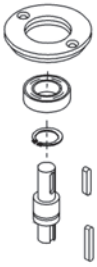

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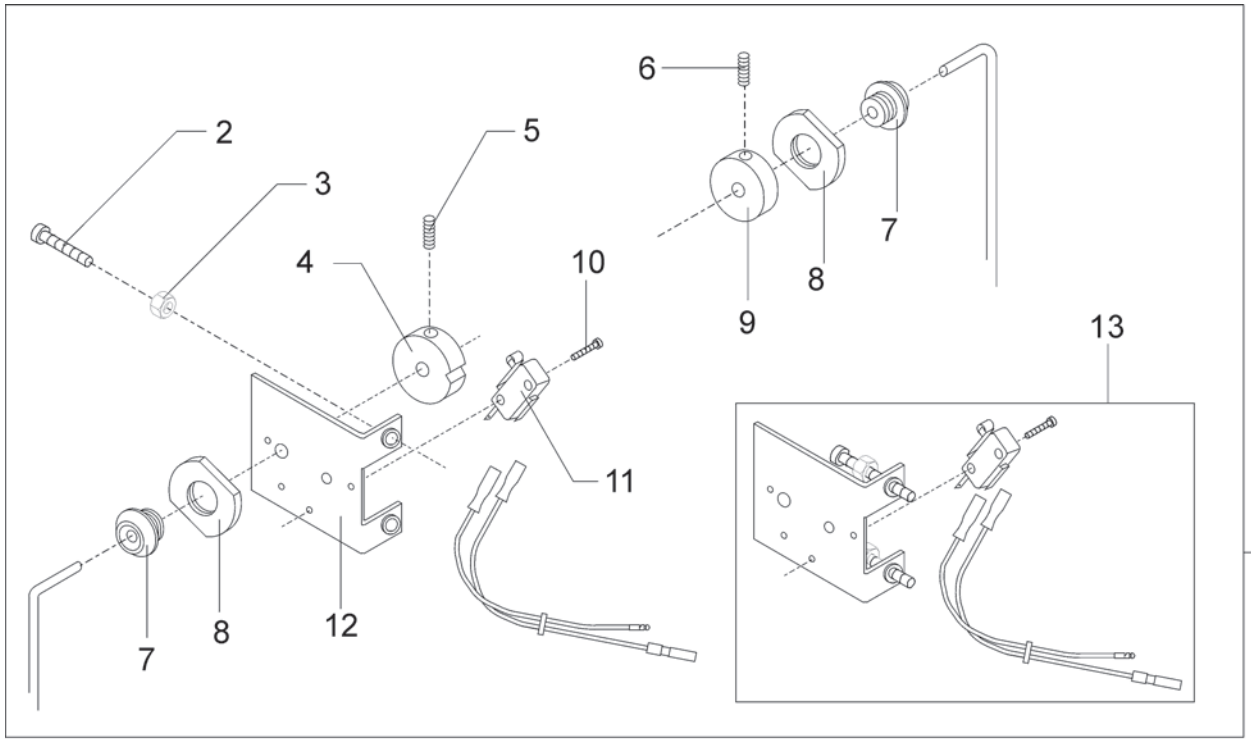
Attachment Drive (W80 Only)

Fig. No.	Description	W80
1.	Grease Zerk	STA 3220
2.	Motor Mount Plate	60-61
3.	Slotted Screw	STA 5018
4.	Washer	STA 6054
5.	Gear Case Cover	15-11
6.	Ball Bearing	20-104
7.	Snap Ring	STA 3410
8.	Key f/motor pulley	STA 2007
9.	Upper attachment drive shaft	20-52
10.	Key f/worm gear	STA 2011
11.	Worm Gear	20-49
12.	Gear Case	15-10
13.	Bolt f/gear case to motor	STA 5433
14.	Washer	STA 6020
15.	Seal	STA 5908
16.	Gasket (NLA-Use RTV Silicone)	NLA
17.	Gasket (NLA-Use RTV Silicone)	NLA
18.	Bolt f/gear case to motor	STA 5433
19.	Lockwasher	STA 6056
20.	Ball Bearing	15-105
21.	Wormwheel	20-9
22.	Seal	20-107
23.	Seal	STA 5908
24.	Slotted Screw	STA 5018
25.	Bearing Hub	15-5
26.	Key f/attachment drive shaft	STA 2032
27.	Attachment Drive Shaft #17	15-50
27A.	Attachment Drive Shaft #12	30-50
28.	Attachment Drive Hub #17	15-8
28A.	Attachment Drive Hub #12	30-8
29.	Lockwasher	STA 6056
30.	Pin f/hub	STA 6316
31.	Bolt f/hub	STA 5322
32.	Thumbscrew #17	STA 5561
32A.	Thumbscrew #12	4R-125
34.	Rubber Ring f/hub	15-211
35.	Hub End Cover #17	15-214
35A	Hub End Cover #12	312C
36	Motor 4 hp 3/220/60	100-88.50
36A.	Motor 4 hp 3/480/60	100-85.10
37.	Attachment Drive Shaft Assembly#17	15-5M
37A.	Attachment Drive Shaft Assembly#12	30-5M
38.	Attachment Drive Assembly#17	30-10.5M
38A.	Attachment Drive Assembly#12	30-10.6M
39.	Gear Cover Assembly	15-11M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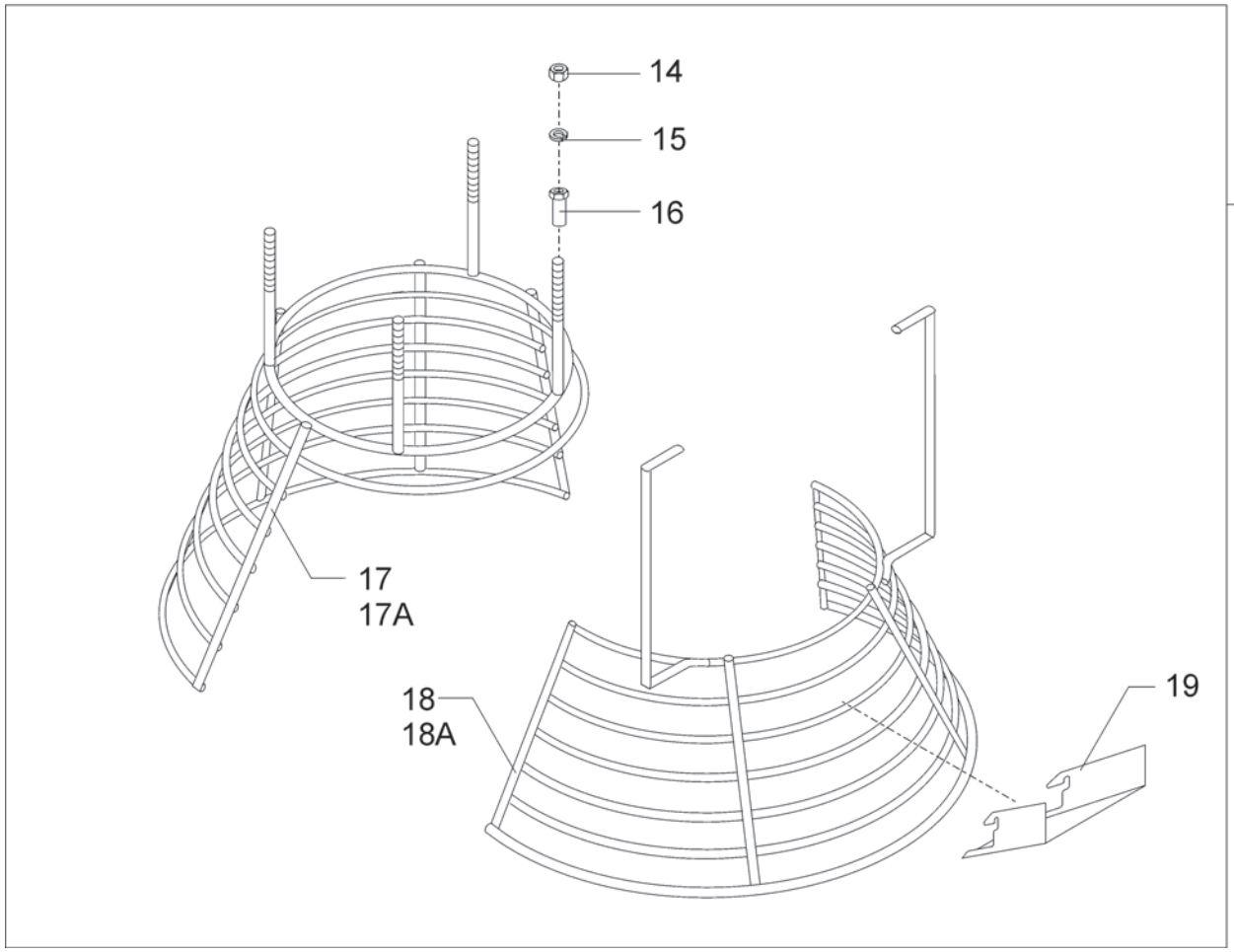
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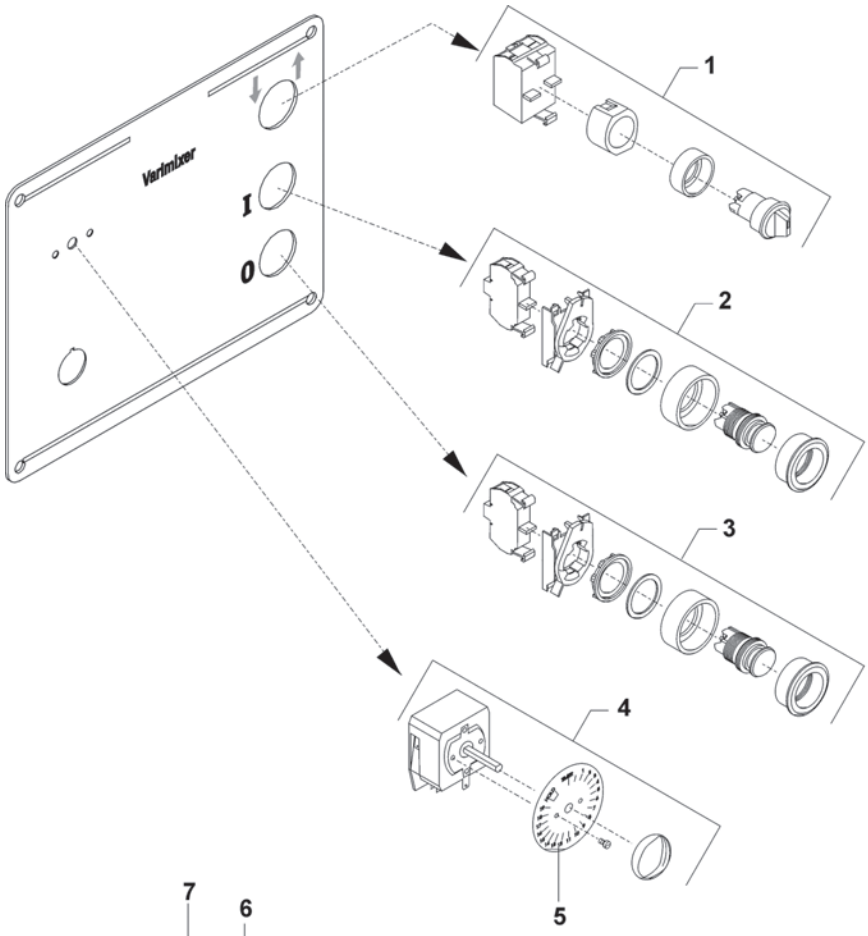
Bowl Screen W80-W100

Fig. No.	Description	W80-W100
1.	Bowl Screen Kit W80	225/80N
1A.	Bowl Screen Kit W100	225/100N
2.	Screw	STA 5250
3.	Nut	STA 5819
4.	Bowl Screen Cam notched	56SN30-22
5.	Set Screw f/cam	STA 5665
6.	Set Screw f/keeper	STA 5665
7.	Bushing	56SN30-21
8.	Nut f/ bushing	56SN30-24
9.	Cam	56SN30-23
10.	Screw f/microswitch	STA 5251
11.	Microswitch	56SN20-30
12.	Bracket f/ microswitch	56SN30-13
13.	Microswitch bracket assembly	56P30-15
14.	Nut	STA 5810
15.	Lockwasher	STA 6056
16.	Nut f/bowl screen adjustment	56G30-26
17.	Rear bowl screen W80	225/80NR
17A	Rear bowl screen W100	225/100NR
18.	Front bowl screen W80	225/80NF
18A.	Front bowl screen W100	225/100NF
19.	Ingredient Chute	227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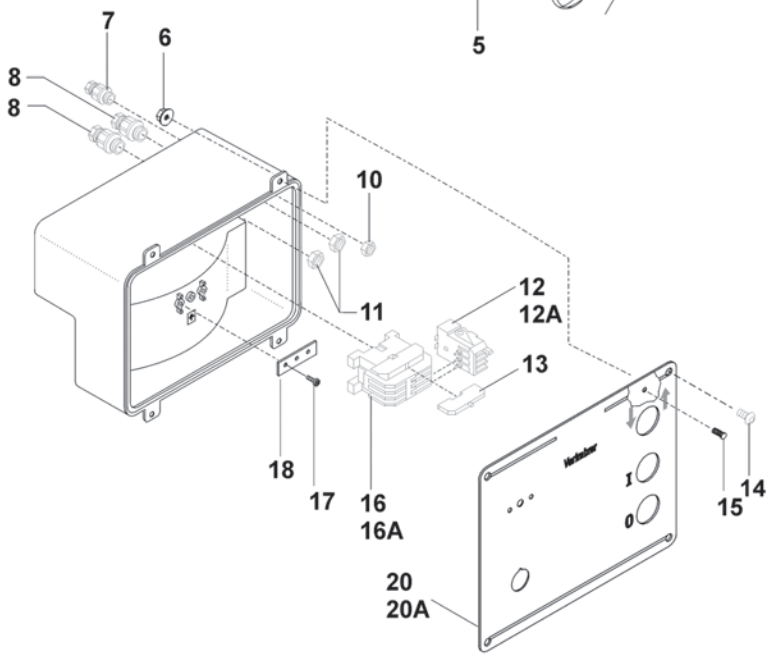
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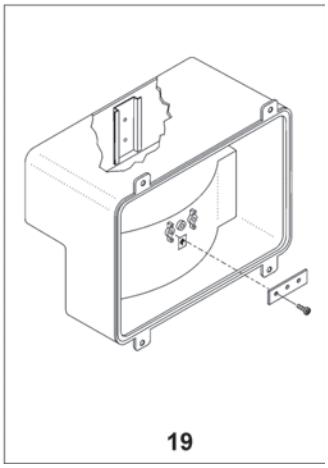
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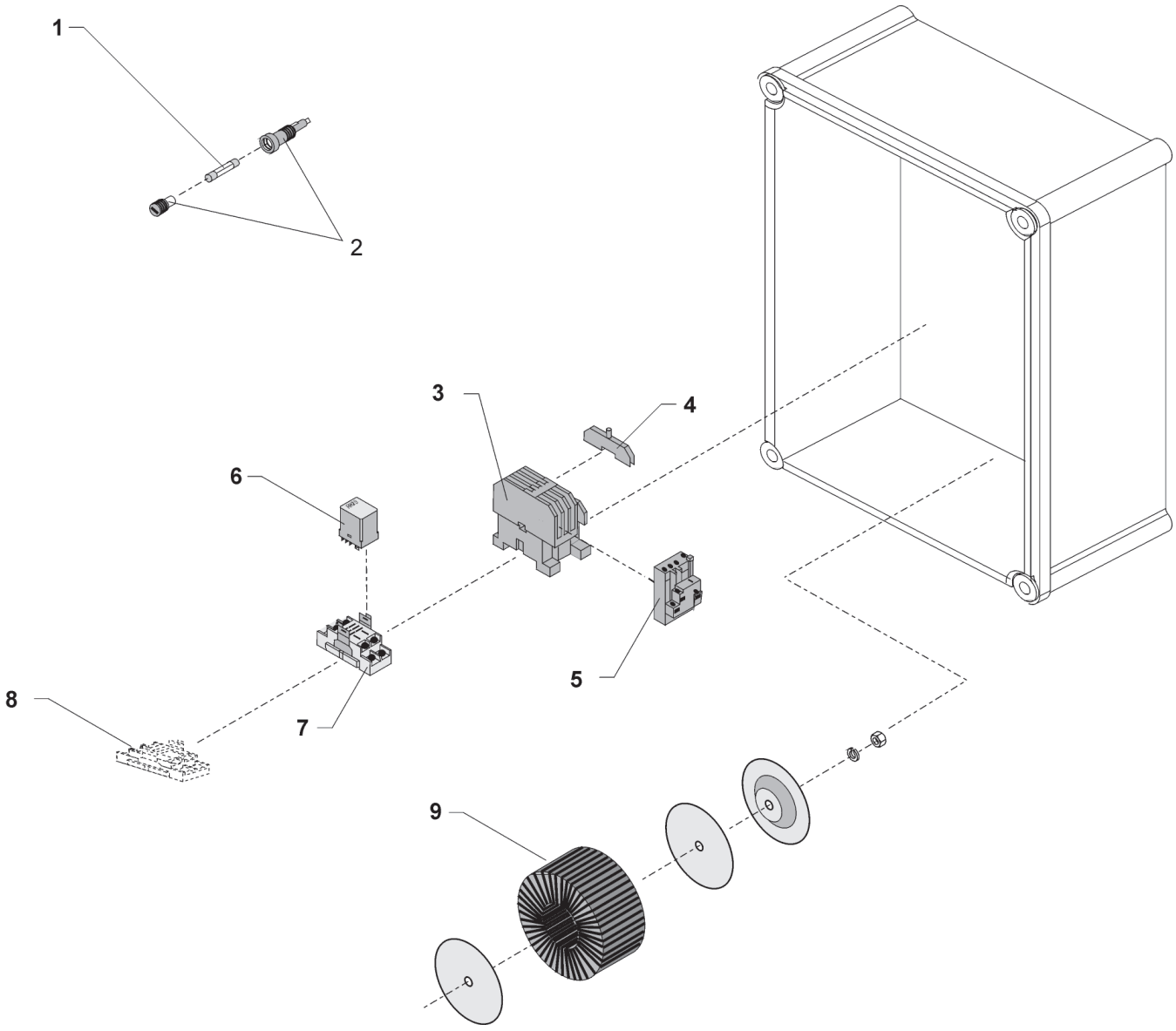
Electrical Control Panel W80-W100 1998-Present

Fig. No.	Description	W80-W100
1.	Power Bowl Lift Switch (if applicable)	60-86.1
2.	Start Button complete	31-174.2
3.	Stop Button complete	31-174.3
4.	Timer (220v)	30-188.15
5.	Timer Scale 15 minute	30-190
6.	Nut	STA 5987
7.	Cable Inlet f/14/2 cable	STA 6483
8.	Cable Inlet f/14/4 cable	STA 3017
10.	Nut	STA 3038
11.	Nut	STA 3010
12.	Thermal Overload 220v*	20-88.24
12A.	Thermal Overload 480v*	20-88.21
13.	Auxiliary Switch*	20-88.47
14.	Screw	STA 5097
15.	Press Screw	STA 6483
16.	Contactor 220v*	100-88.5
16A.	Contactor 480v*	20-88.91
17.	Screw	STA 5232
18.	Ground Clamp	31-457
19.	Plastic Electrical Box	31-152
20.	Front Control Plate w/o Power Bowl Lift	31-149

**On versions produced from 2005 to present, these components are located in the rear power supply box, behind the rear access panel on the mixer frame. Refer to the following diagram.*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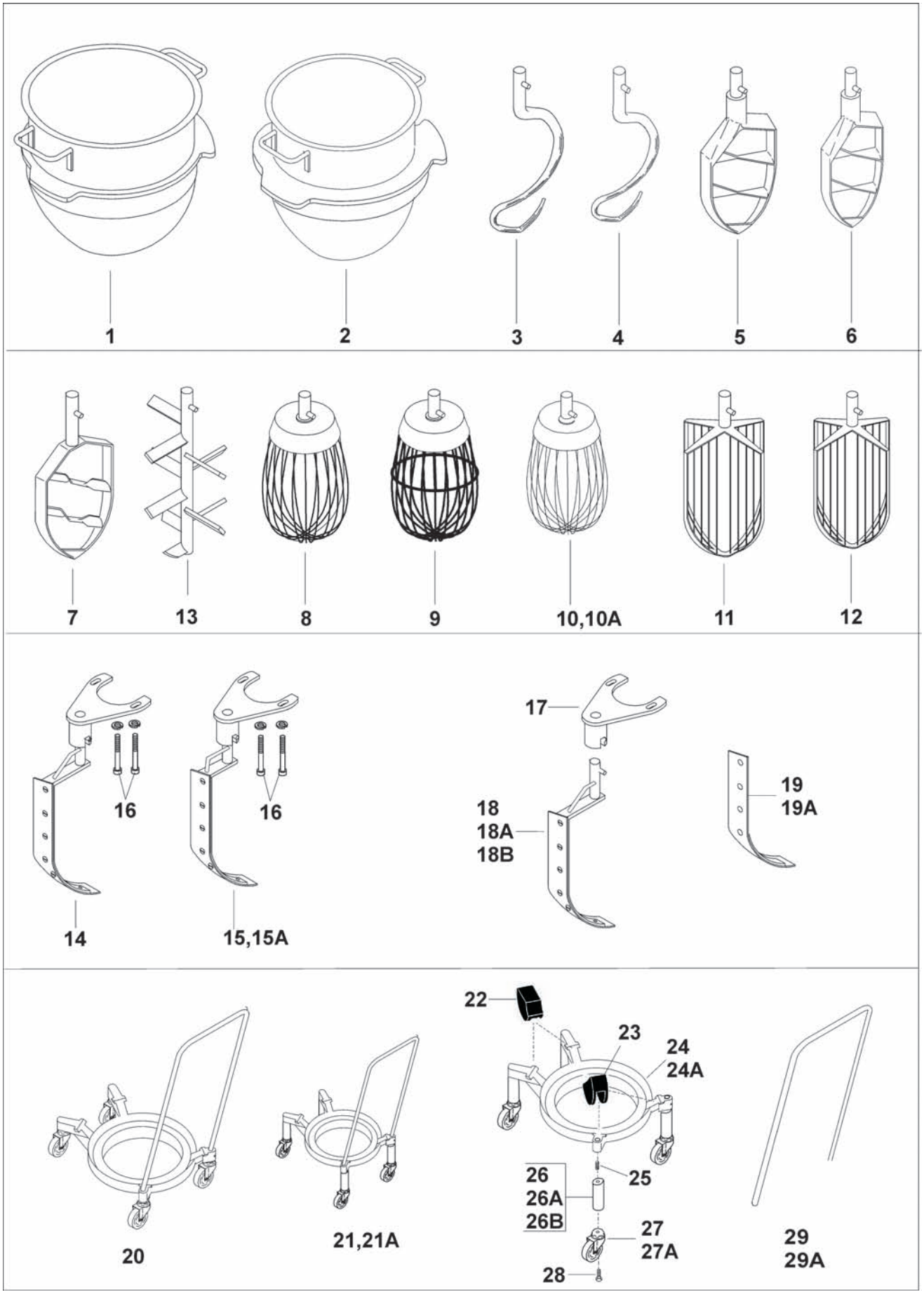
Electrical Power Supply W80-W100 1998-Present

Fig. No.	Description	W80-W100
1.	Fuse	20E-418
2.	Fuse Holder	20E-416
3.	Contactor 220V	100-88.5
3A.	Contactor 480V	20-88.91
4.	Auxiliary Switch	20-88.47
5	Thermal Overload 11-16 Amps	20-88.24
5A.	Thermal Overload 4-6.2 Amps	20-88.21
6.	Relay 24VDC IDEC RH1B-U	140E-420
7.	Relay Socket	140E-421
8.	LINAK Power Bowl Lift Control	100N-86.01
9.	Transformer 220v/31v	60E-430.1
10.	Rectifier	150E-425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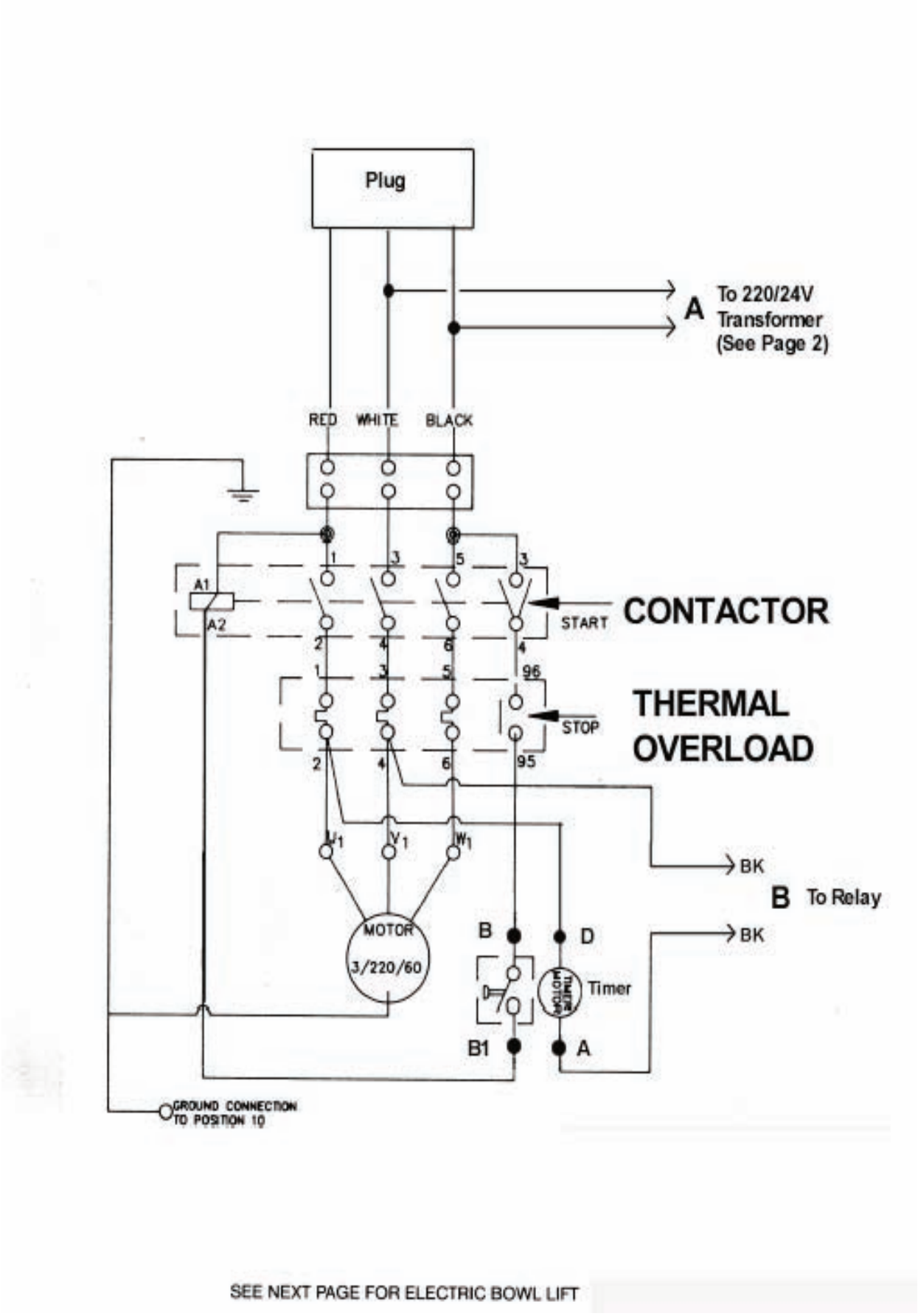
Accessories W80-W100

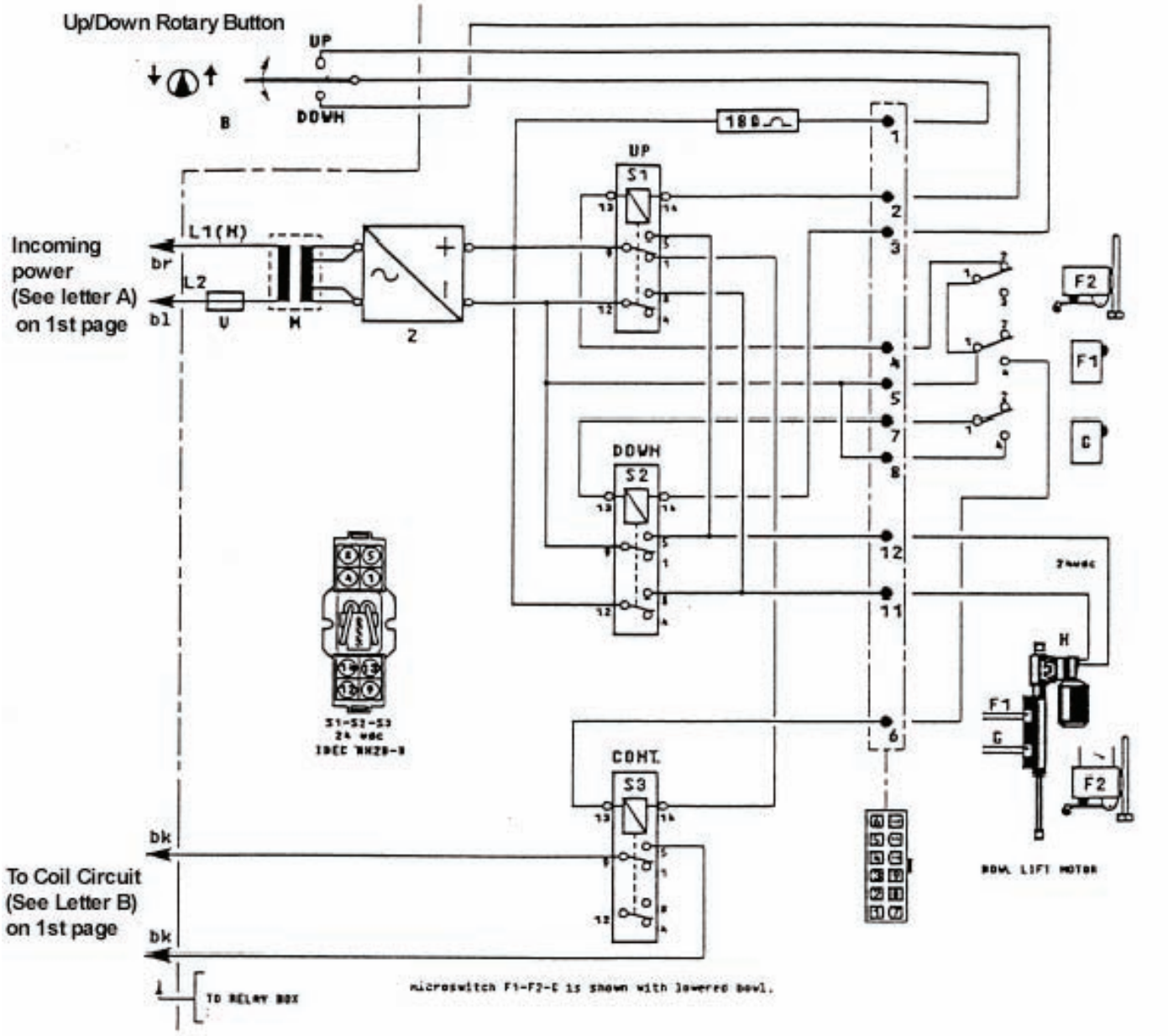
Fig. No.	Description	W80	W100
1.	Standard Stainless Steel Bowl	203/80N	203/100N
2.	Stainless Steel Bowl (downsized 60)	NA	203/60N
2A.	Stainless Steel Bowl (downsized 40)	203/40BN	203/40N
3.	Standard Dough Hook	213/80D	213/100D
4.	Dough Hook (downsized)	213/40BN	213/40N
5.	Standard Flat Beater	205/80N	205/100N
6.	Flat Beater (downsized 60 QT)	NA	205/60N
6A	Flat Beater (downsized 40 QT)	205/40BN	205/40N
7.	Stainless Steel Flat Beater	204/80N	204/100N
8.	Standard Wire Whip	207/80N	207/100N
9.	Reinforced Wire Whip	221/80N	221/100N
10.	Wire Whip (downsized 60 QT)	NA	207/60N
10A	Wire Whip (downsized 40 QT)	207/40BN	207/40N
11.	Wing Whip	209/80N	209/100N
12.	Wing Whip (downsized)	NA	NA
13.	Powder MIxing Tool	NA	220/100N
14.	Bowl Scraper Assembly Full Size	224/80N	224/100N
15.	Bowl Scraper (downsized 60 QT)	NA	224/60N
15A.	Bowl Scraper (downsized 40 QT)	224/40BN	224/40N
16.	Bowl Scraper Mounting Bolts	STA 5652	STA 5652
17.	Bowl Scraper Holder	42RN100-101M	42RN100-101M
18.	Arm w/ Blade Assembly	42AR80-202	42RN100-202
18A.	Arm w/ Blade (downsized 60 QT)	NA	NA
18B.	Arm w/ Blade (downsized 40 QT)	42AR41-202	42RN100B-202
19.	Nylon Blade Keyhole Style	42AR80-204	42RN100-204
19A.	Nylon Blade Keyhole Style (downsized)	42R40-204	42R40-204
20.	Bowl Truck f/full size bowl	215/80N	215/100N
21.	Bowl Truck f/downsize bowl (60 QT)	NA	215/60N
21A.	Bowl Truck f/downsize bowl (40 QT)	215/40BN	215/40N
22.	Bowl Truck Rubber Block (Front)	100-206A	100-206A
23.	Bowl Truck Rubber Block (Rear)	100-206	100-206
24.	Bowl Truck Cast	22R100-40	22R100-40
24A.	Bowl Truck Cast (downsized bowl)	22R20-40	22R20-40
25.	Screw f/spacer to casting	STA 5608	STA 5608
26.	Spacer f/full size bowl truck	22R140.6	22R140.1-7W
26A.	Spacer f/downsized bowl (60qt)	NA	22R140.1-8W
26B.	Spacer f/downsized bowl (40qt)	22R140.1-3W	22R140.1-8W
27.	Castor-Dual Wheel (full size bowl)	22R150-520	22R150-520
27A	Castor-Single Wheel (downsized)	22R30-520	22R30-520
28.	Bolt f/castor to spacer	STA 5131	STA 5131
29.	Bowl Truck Handle	22R271	22R271
29A.	Bowl Truck Handle (downsized)	22R277	22R277

W80-W100 Wiring Diagram with Power Bowl Lift 1988-1996



SEE NEXT PAGE FOR ELECTRIC BOWL LIFT

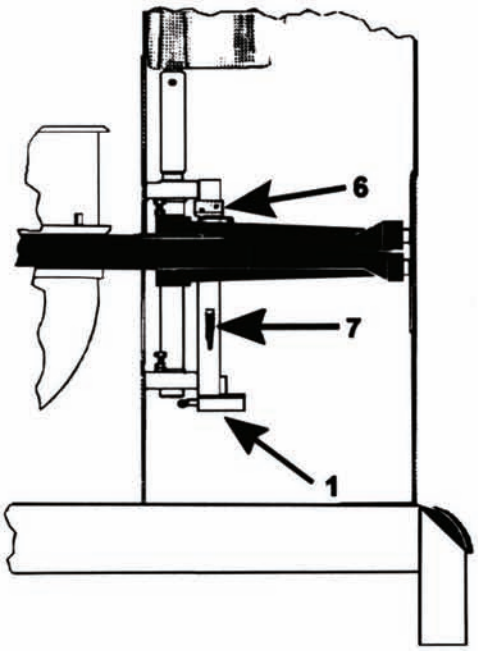
W80-W100 Wiring Diagram with Power Bowl Lift 1988-1996



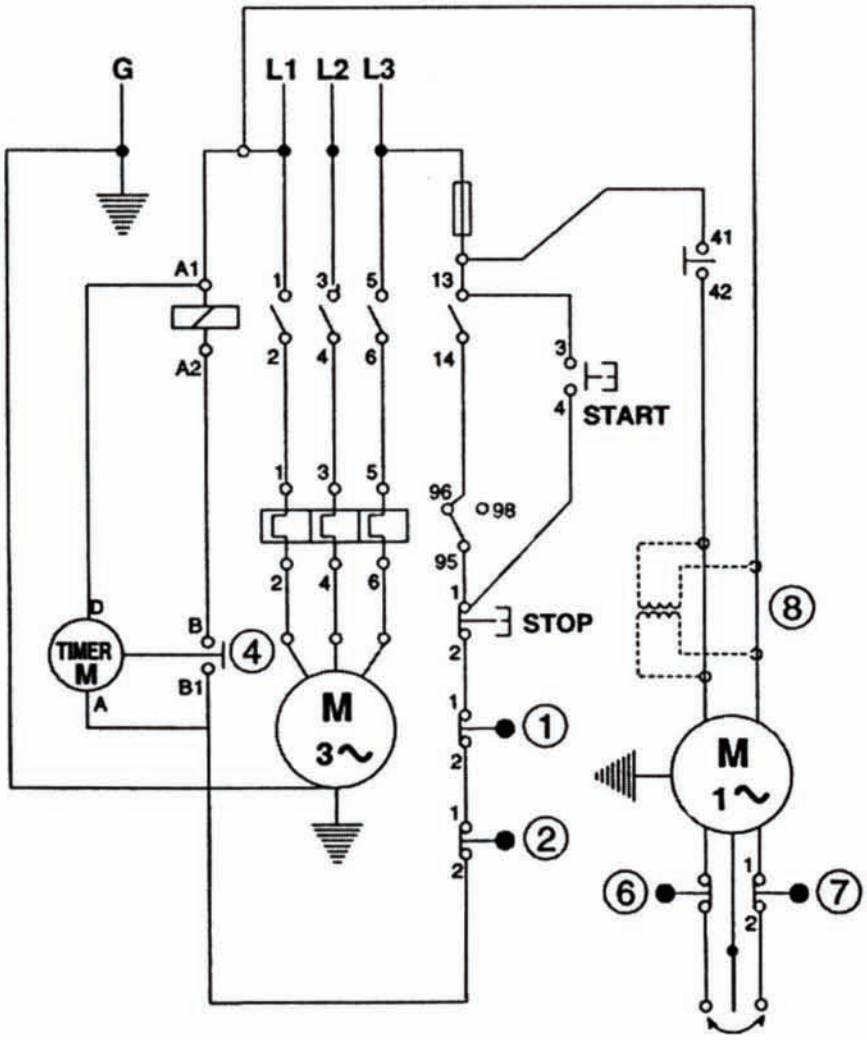
B	.....	Switch for bowl lift .....
F1	.....	Bowl raised switch (Motorstart) . Switch for motorstart
F2	.....	Bowl raised switch .....
G	.....	Bowl lowered switch .....
H	.....	Bowl lift motor .....
M	.....	Transformer .....
S1	.....	Relay for bowl lift .....
S2	.....	Relay for bowl lowering .....
S3	.....	Control relay for motorstart .....
Z	.....	Rectifier .....
V	.....	Fuse 2-2,5 amp. slow .....

W80-W100 Wiring Diagram with Power Bowl Lift 1996

1. Bowl up – "Start" microswitch
2. Bowl Screen microswitch
3. N/A
4. Timer
5. N/A
6. Bowl "up" microswitch
7. Bowl "down" microswitch
8. Transformer and Control Box



3 Phase
(Shown with Power Bowl Lift)



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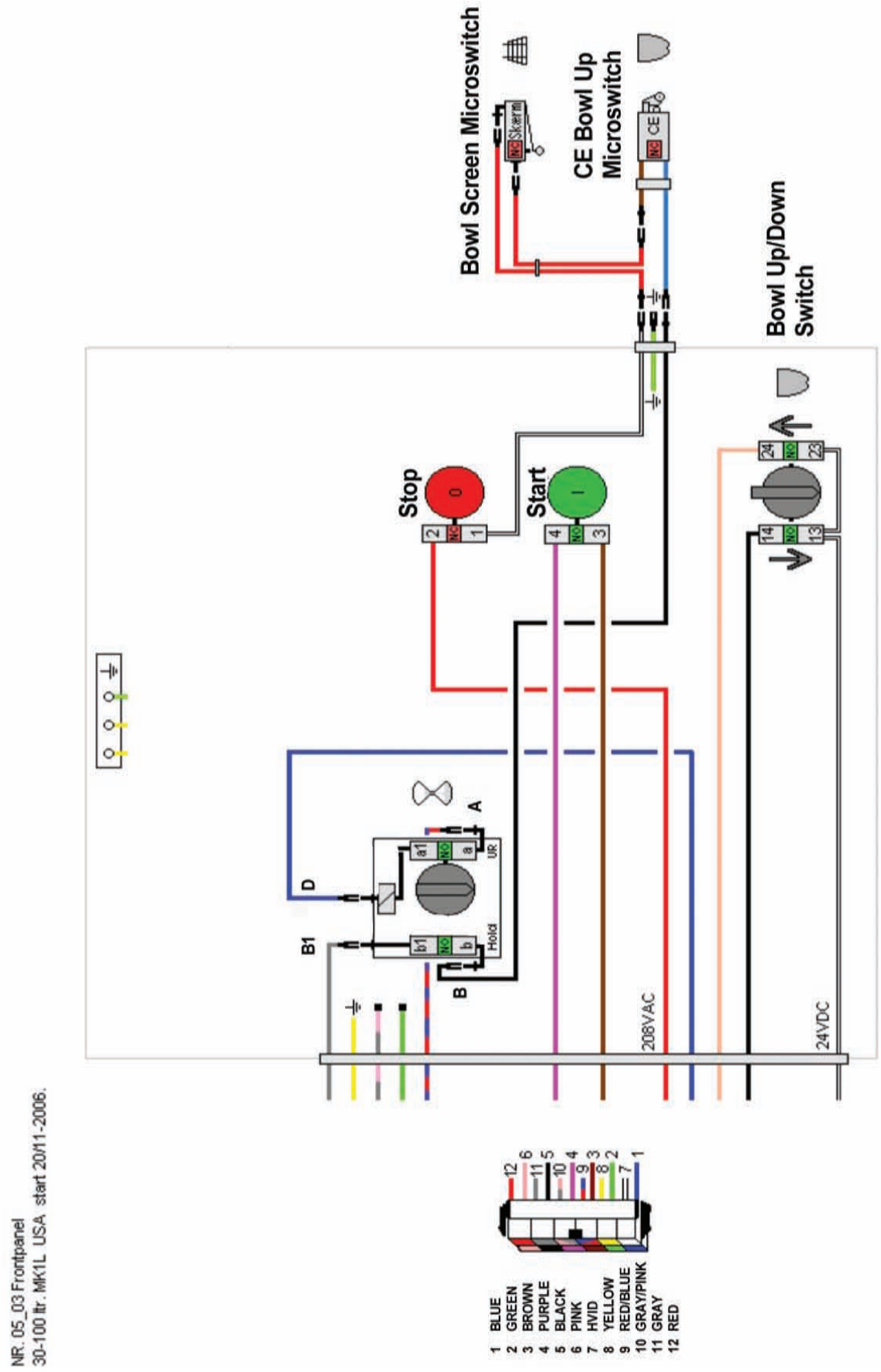
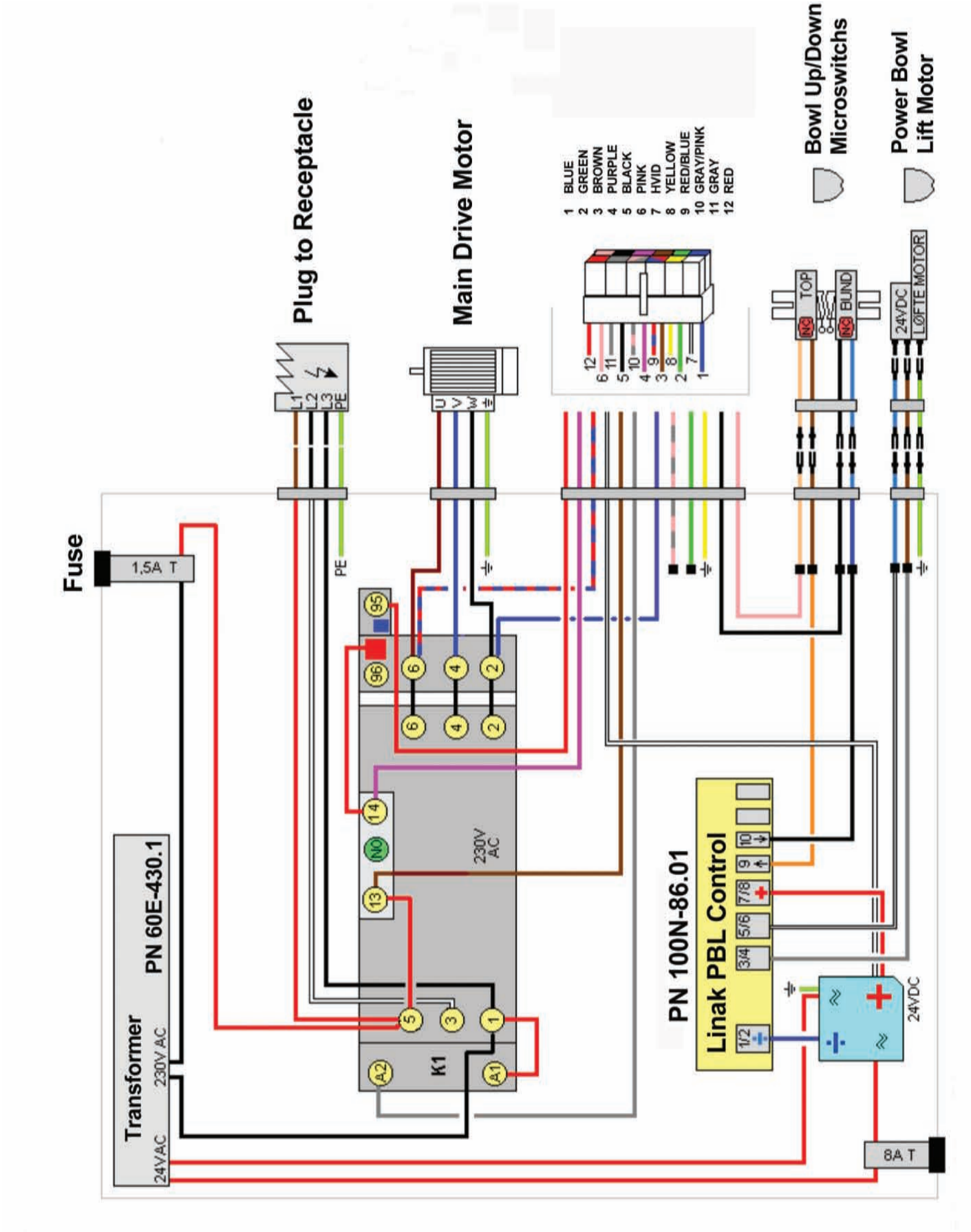
W80-W100 Front Panel Wiring Diagram with Power Bowl Lift 2005-Present



NR. 05_03 Frontpanel
30-100 ltr. MK1L USA start 20/11-2006.

W80-W100 Power Supply Wiring Diagram with Power Bowl Lift 2005-Present



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